

FIGURE 1

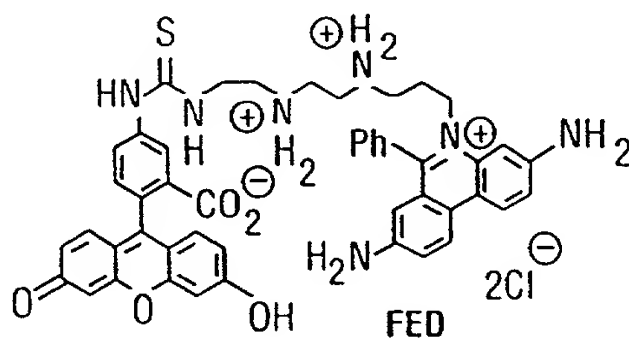
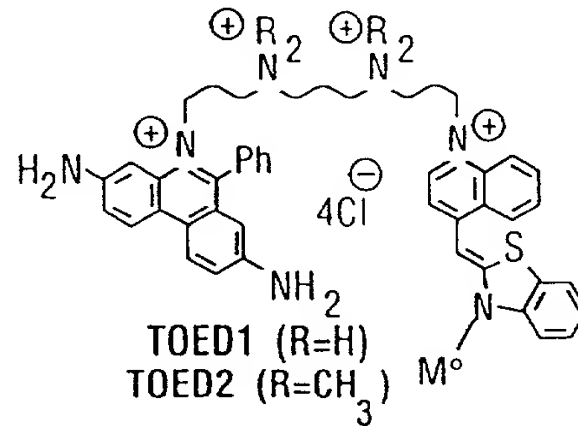
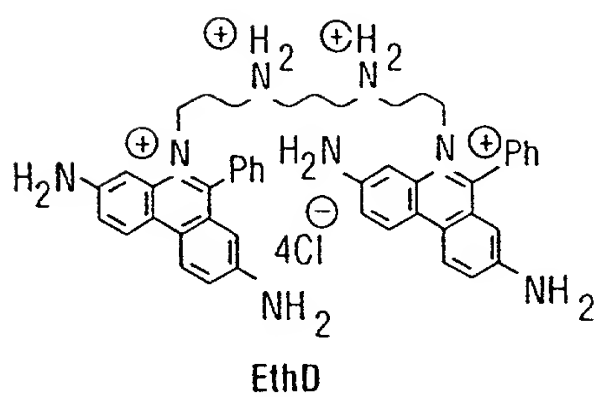
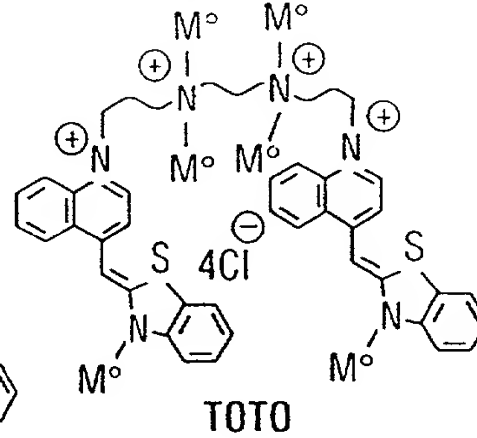
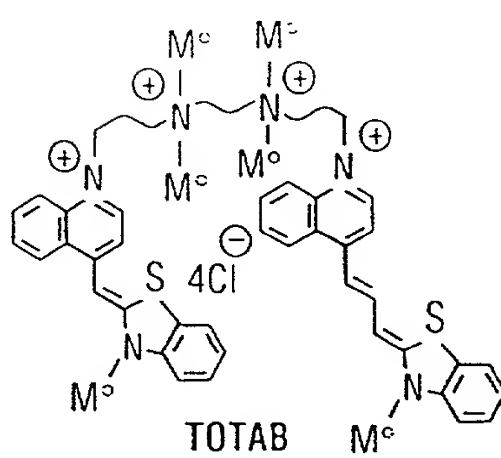
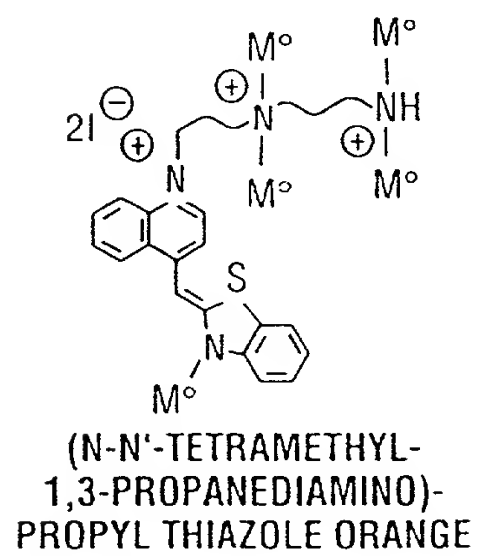
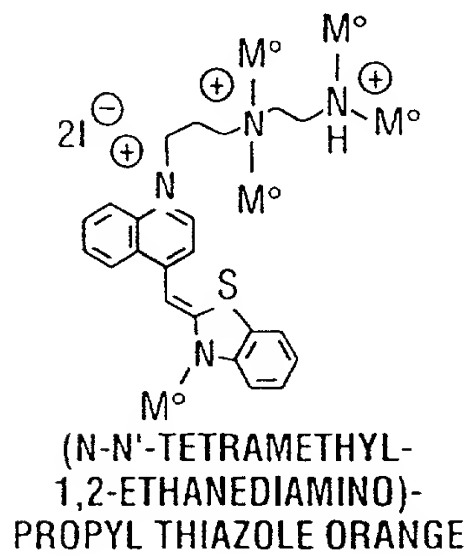
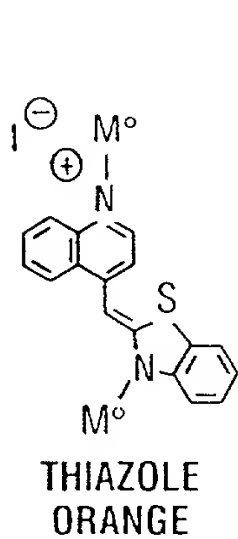
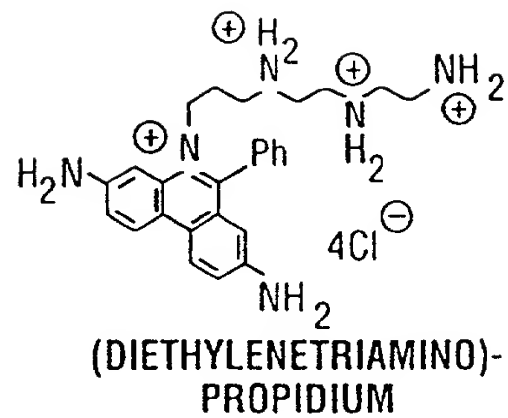
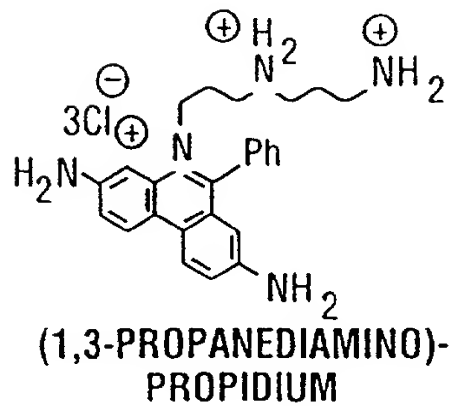
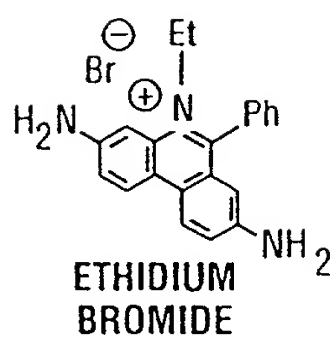


FIGURE 2

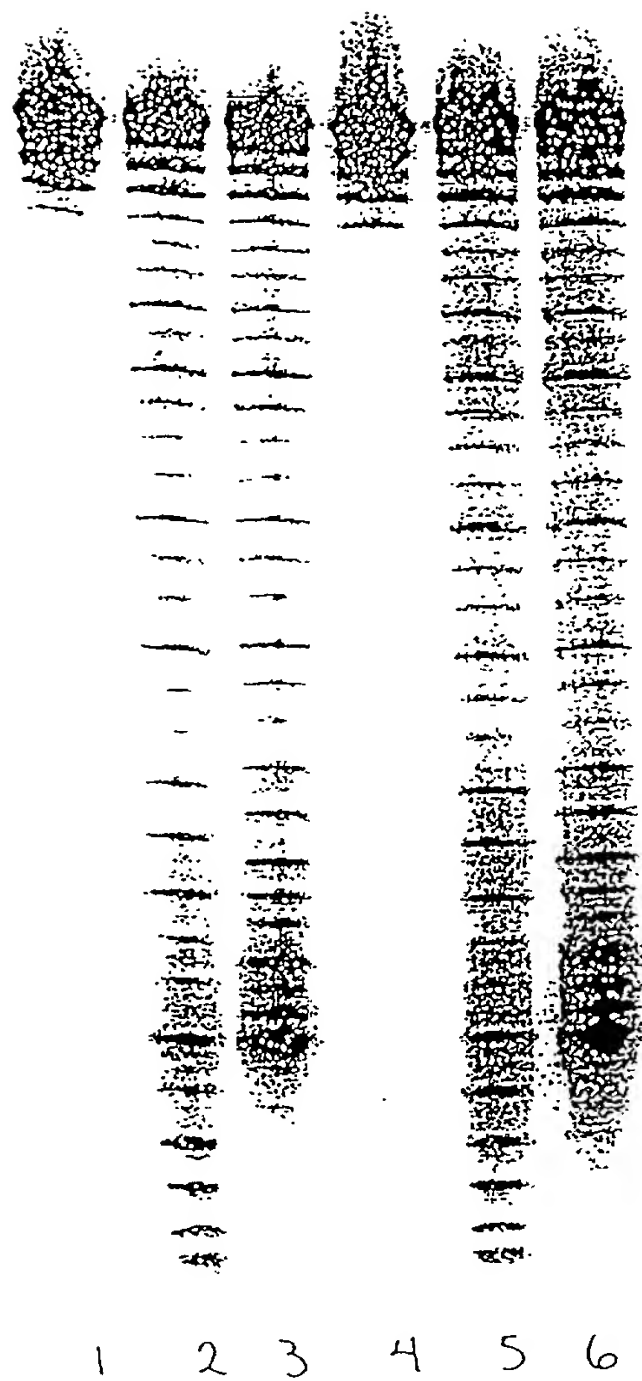


FIGURE 3

70 (C10 amino T's)

74 (C6 amino T's)

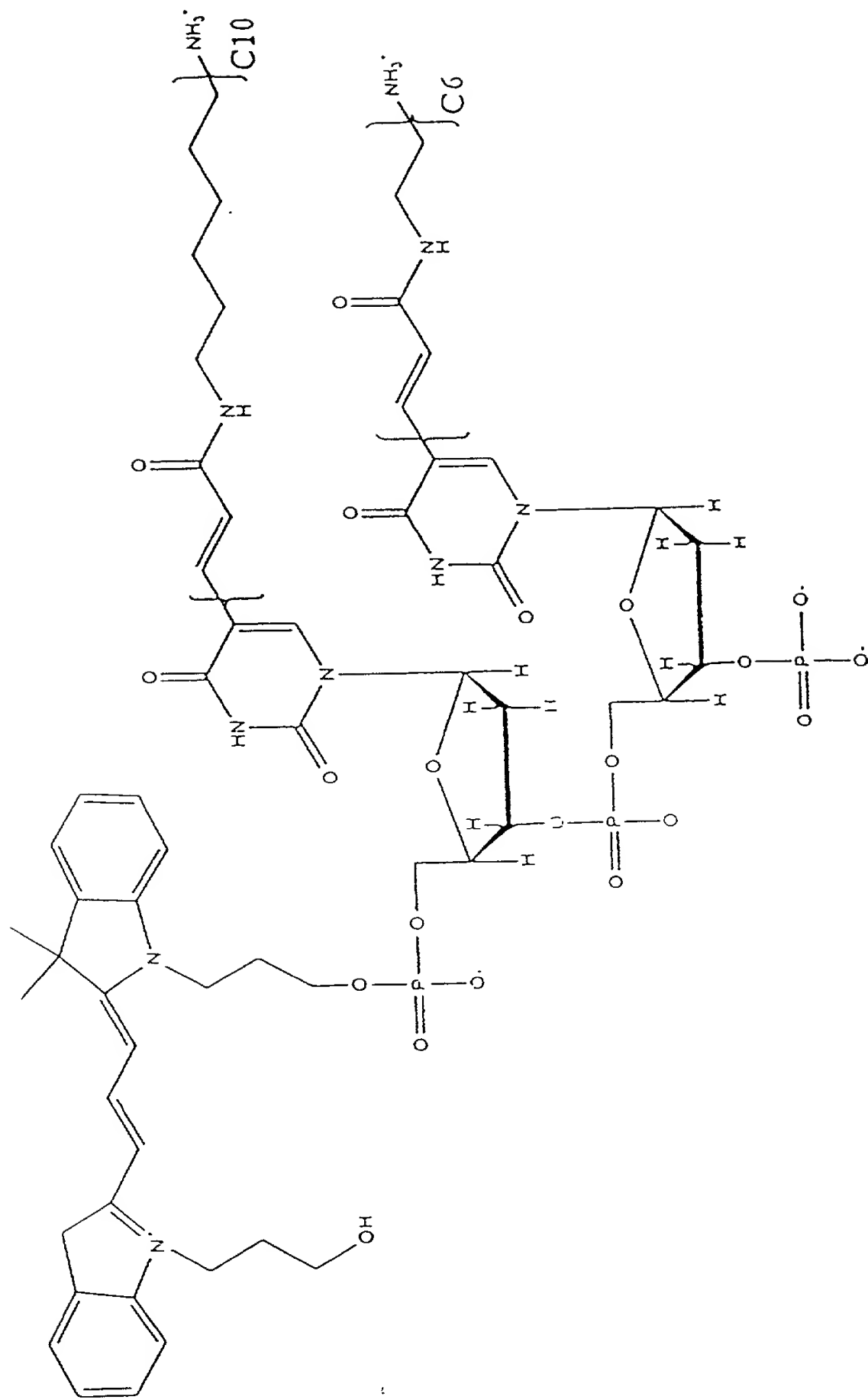
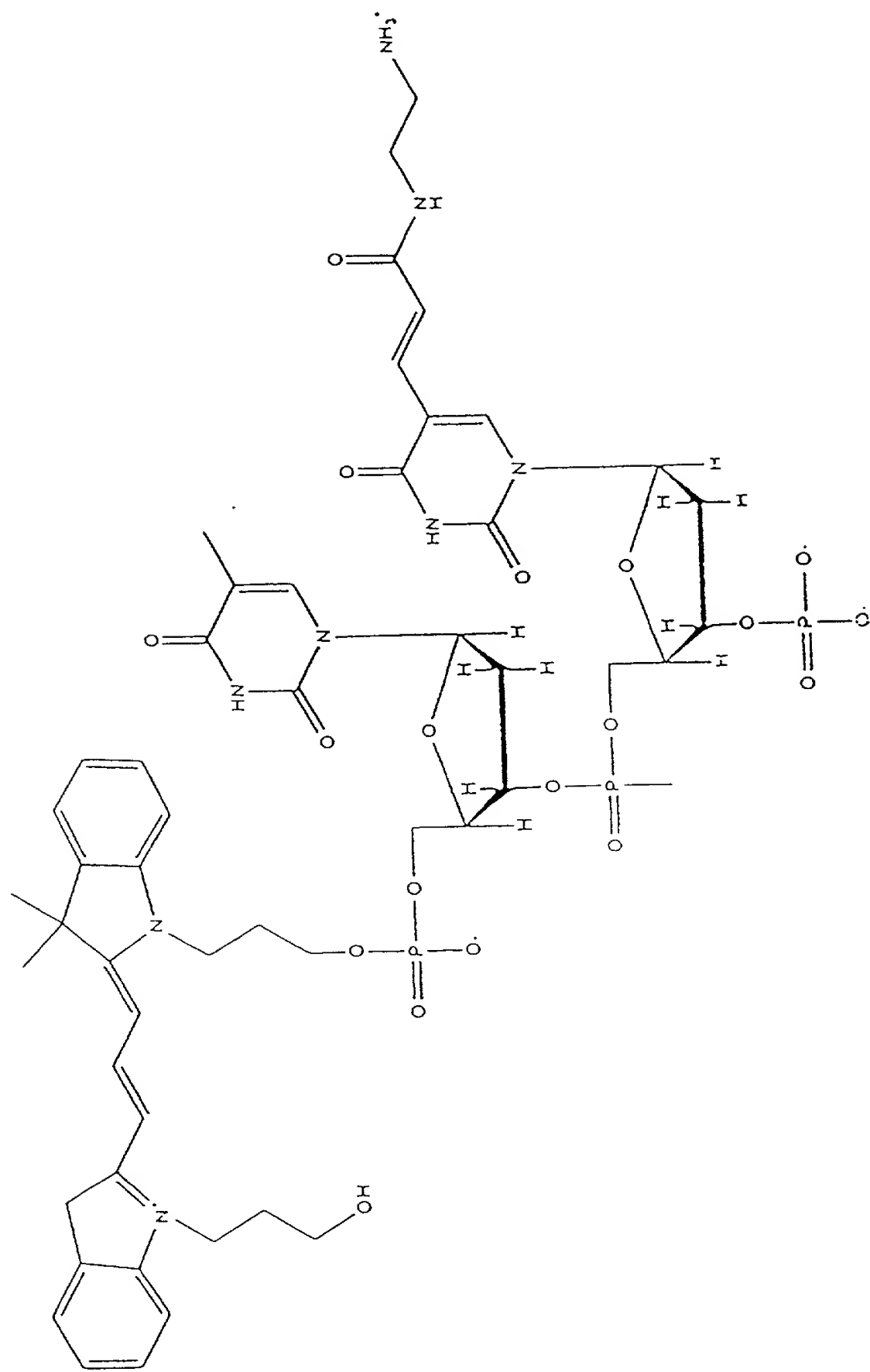


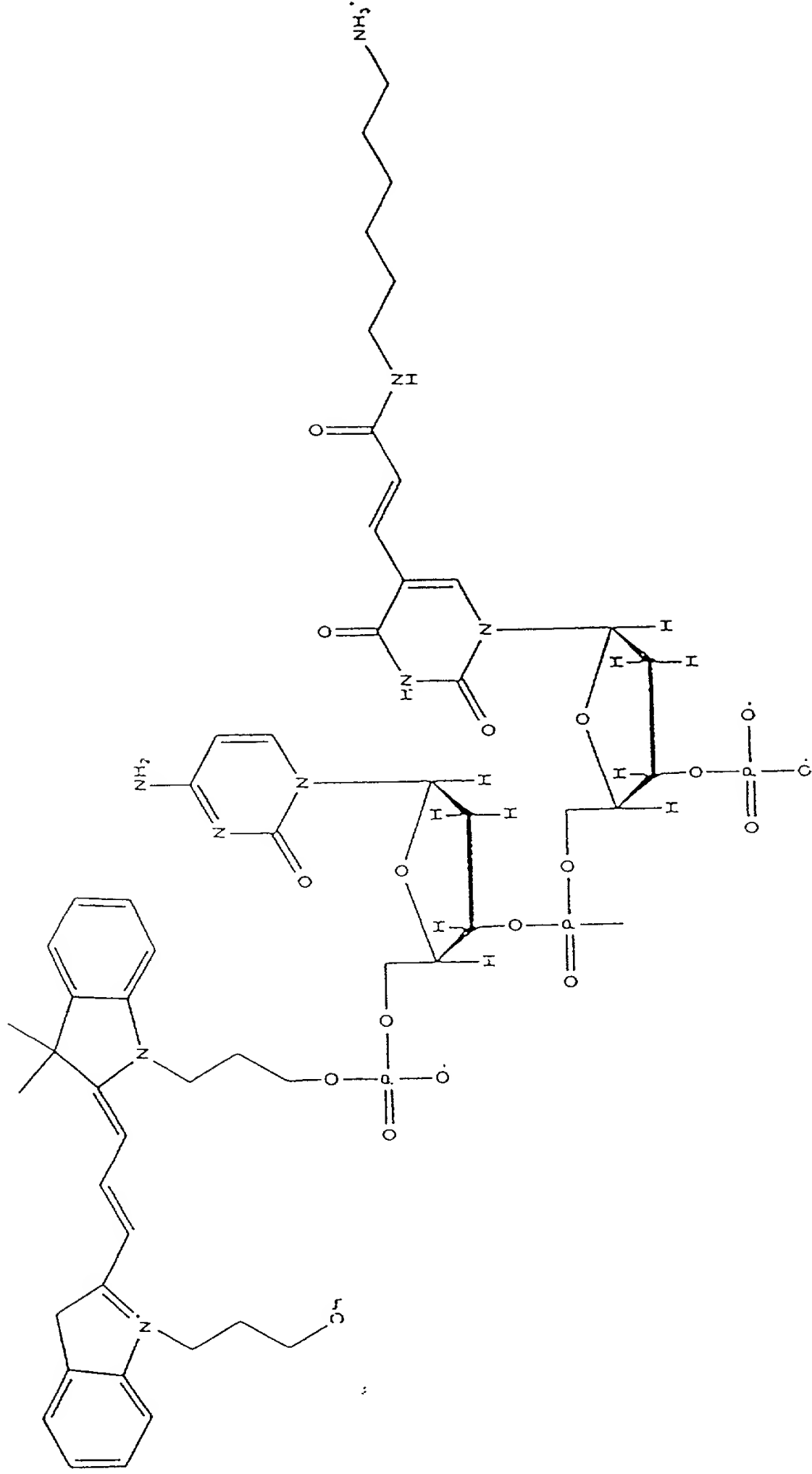
FIGURE 4a

75



9h/h

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76

FIGURE 4b

FIGURE 5

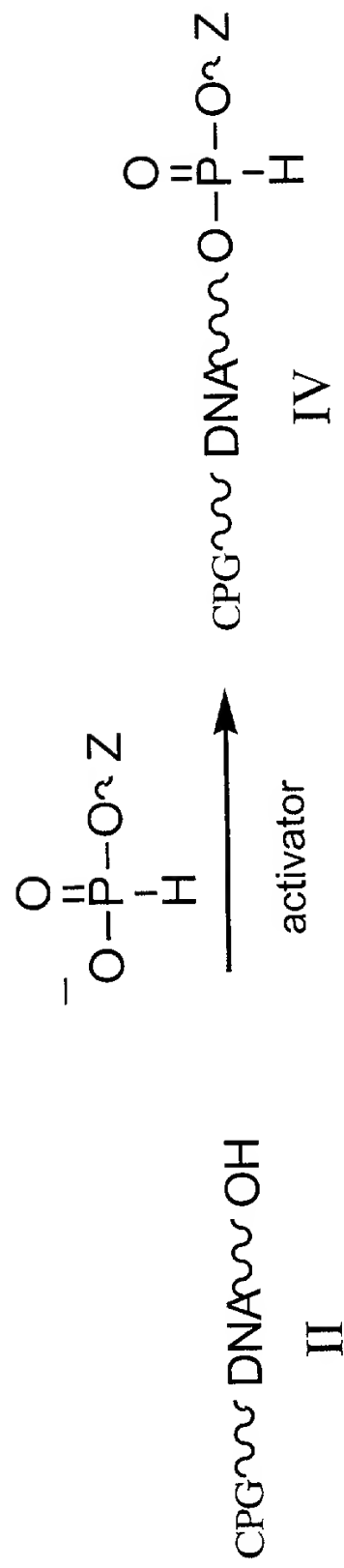
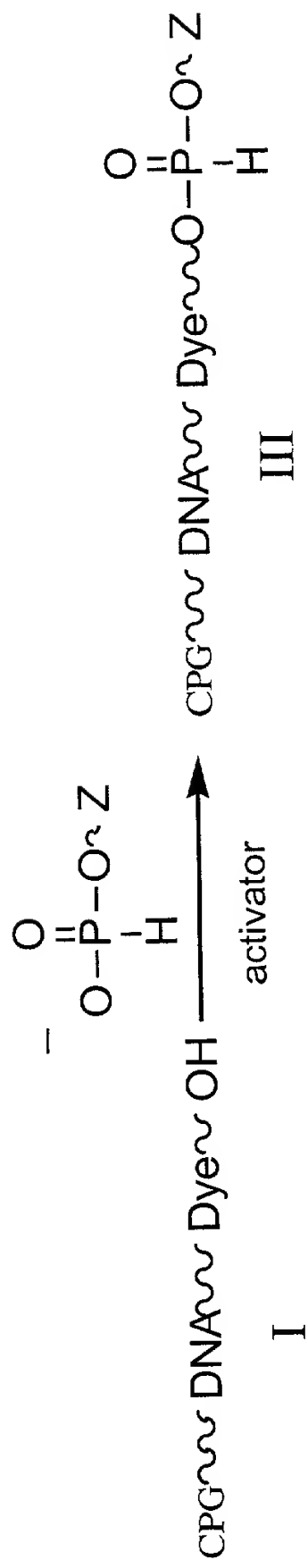
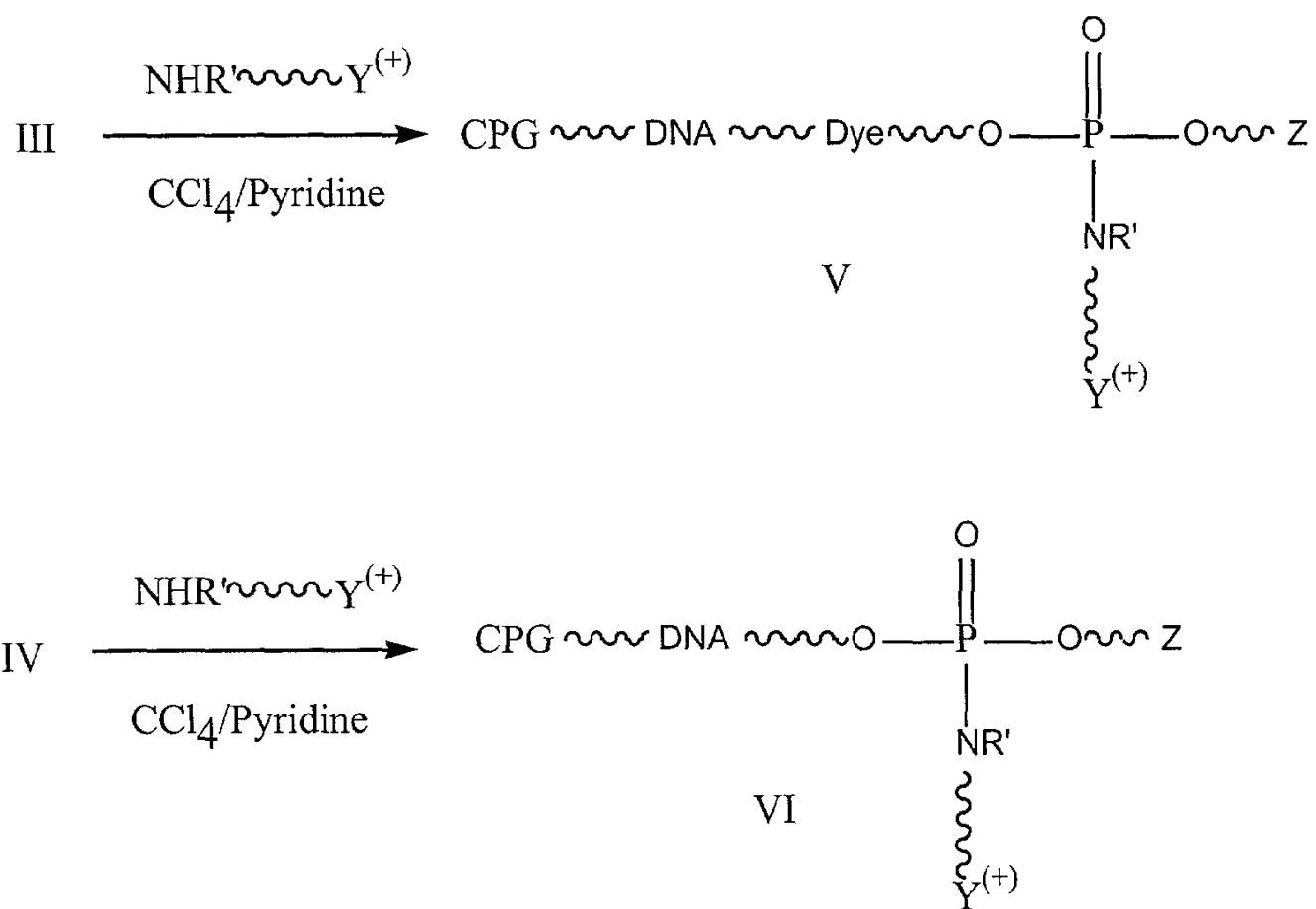


FIGURE 6



Y⁽⁺⁾ = organic group capable to introduce positive charge

FIGURE 7

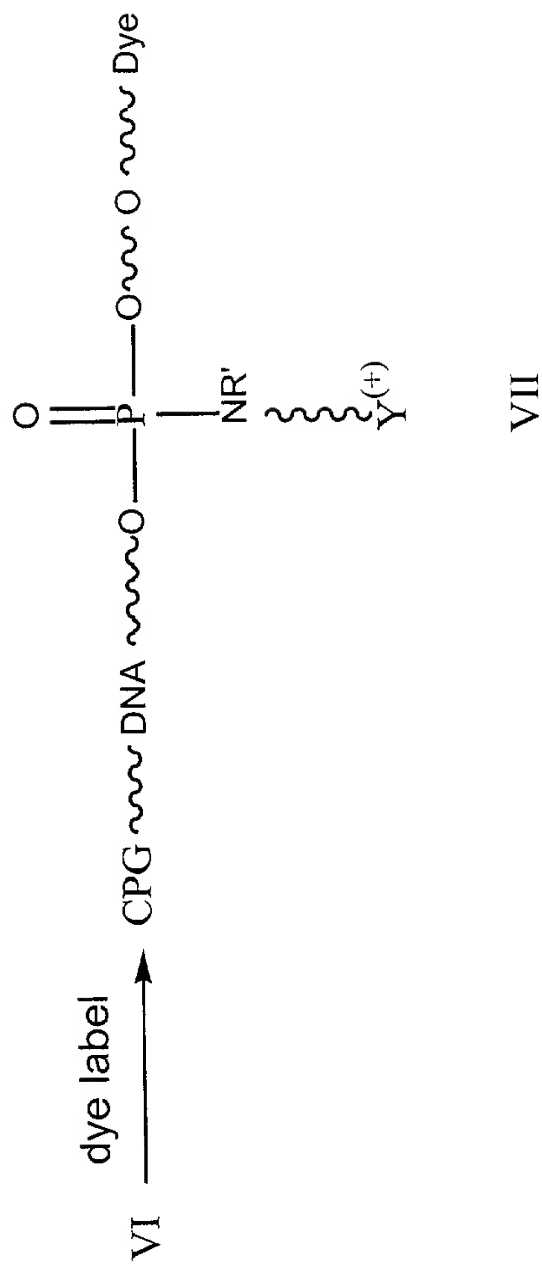
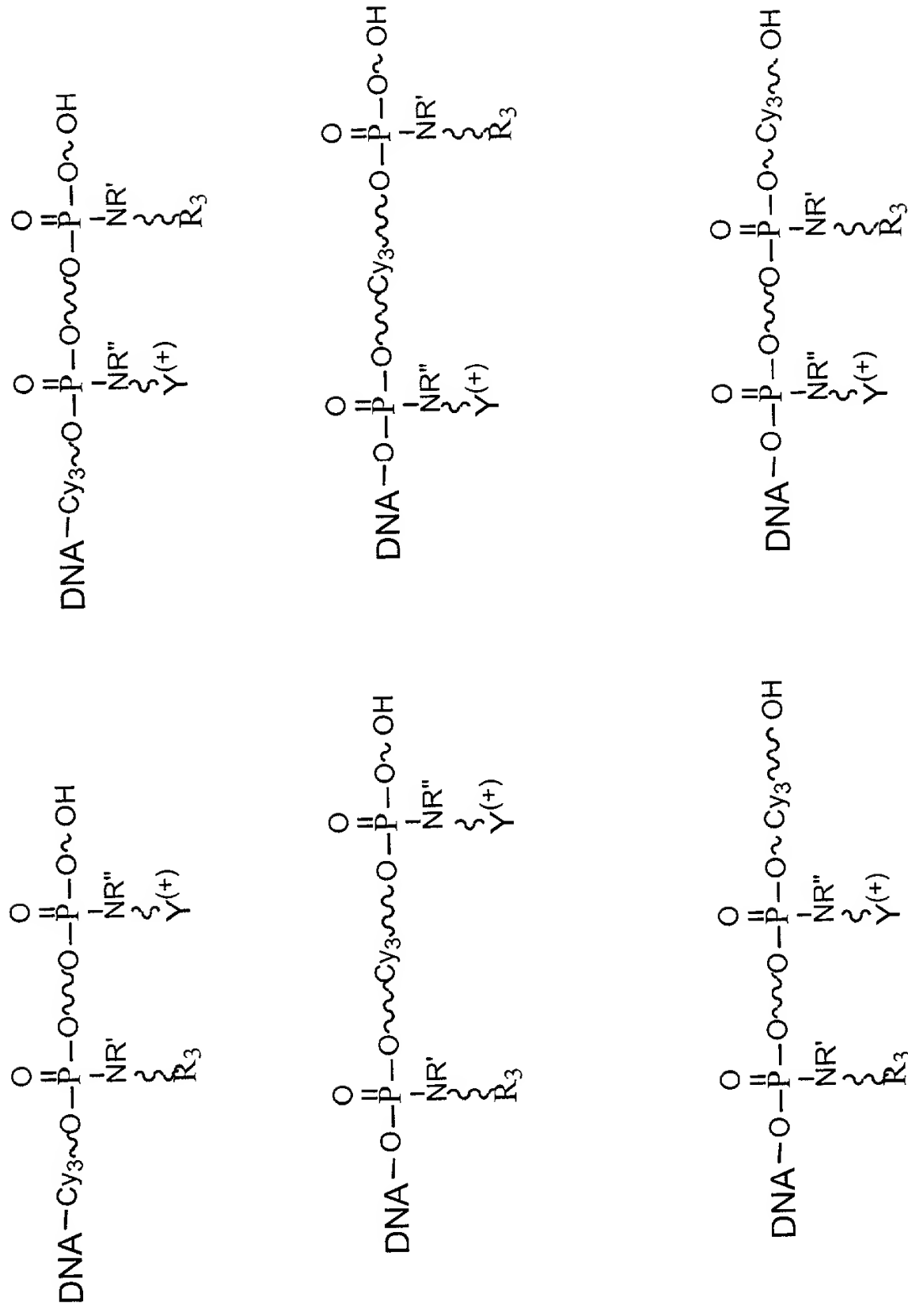


FIGURE 8



R', R'', R3 = H, alkyl, aryl

FIGURE 9

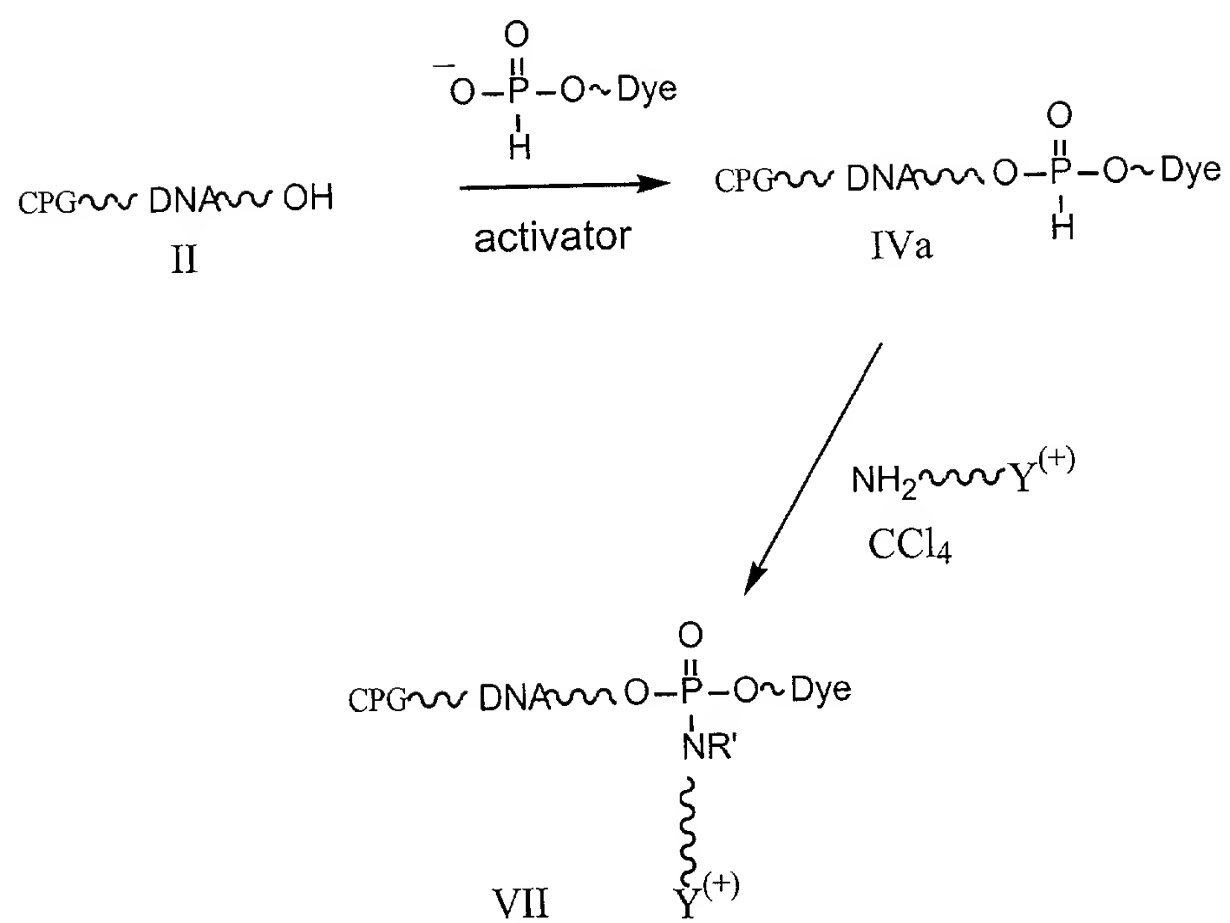
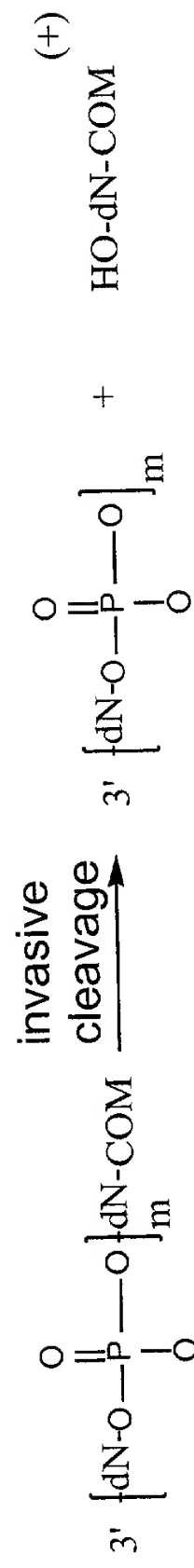


FIGURE 10



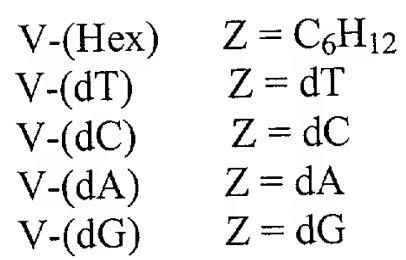
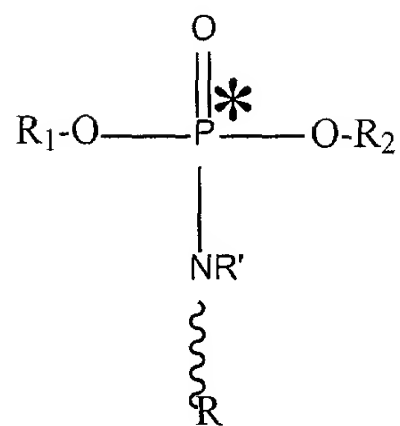
[illegible]

FIGURE 12



chiral phosphoramidate phosphorus atom

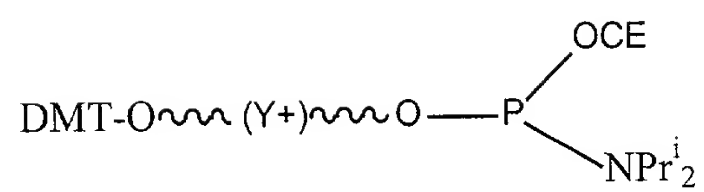
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FIGURE 13



FIGURE 14

A.



B.

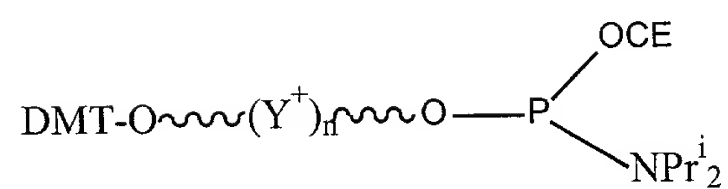


FIGURE 15

- A.

(0) (+1)

3'-DNA - (DP) - (PCP)
- B.

(0) (0) (+1)

3'-DNA - (DP) - (NP)_n - (PCP)
- C.

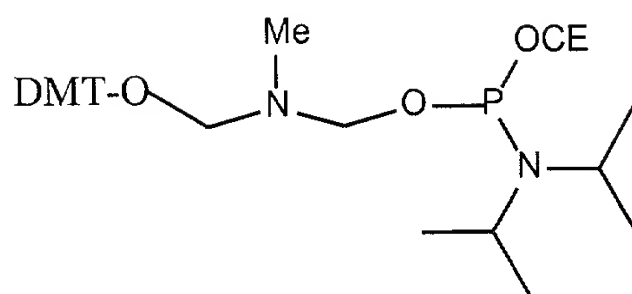
(0) (-1) (+1)

3'-DNA - (DP) - (PBB)_n - (PCP)_(n+1)
- D.

(0) (-1) (+1) (0)

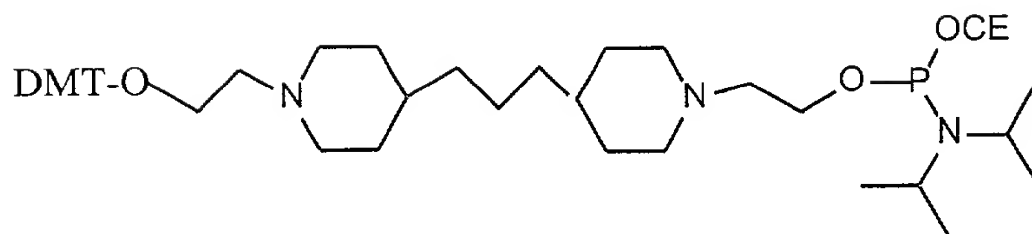
3'-DNA - (DP) - (PBB)_n - (PCP)_(n+1) - (NP)_m

FIGURE 16



Neutral Phosphoramidite

Net Charge : 0



Positively Charged Phosphoramidite

Net Charge : +1

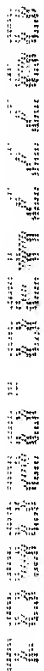
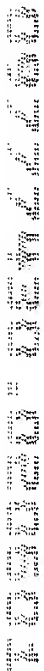
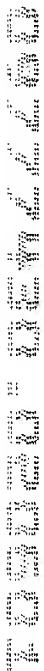
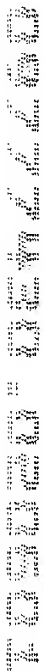
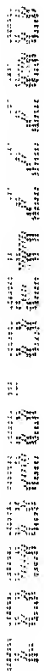
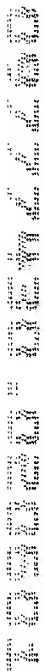
[illegible]

FIGURE 18

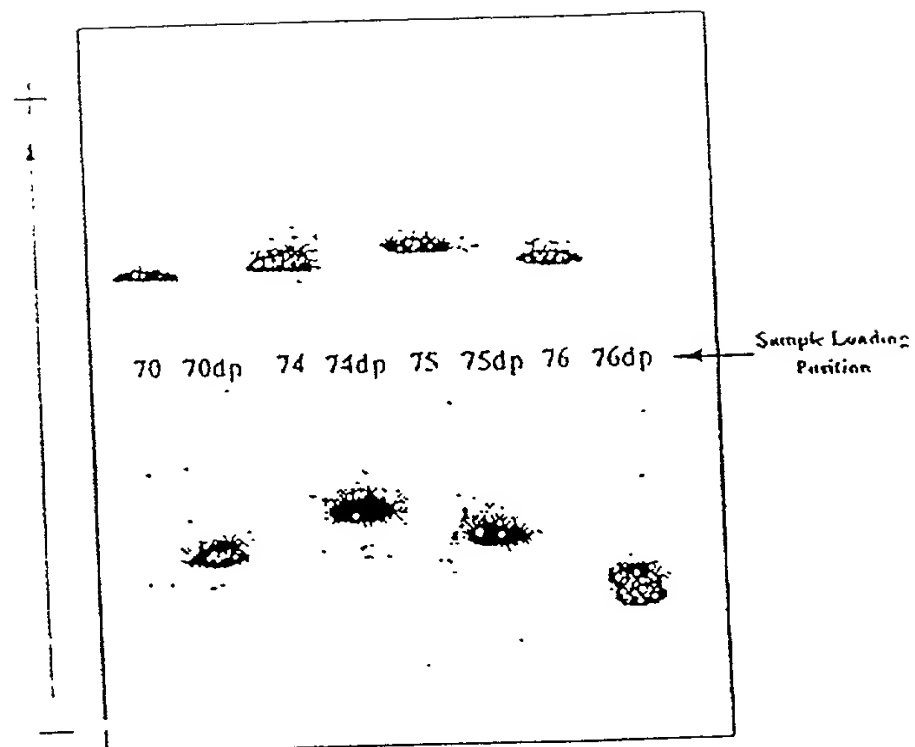
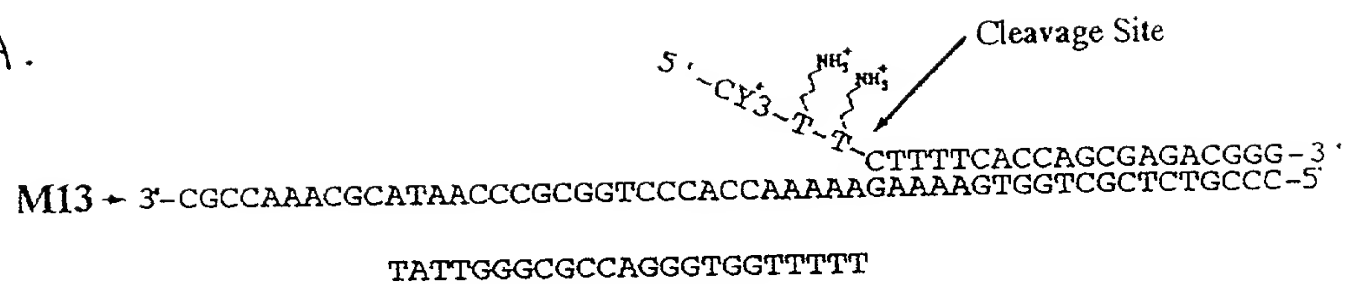


FIGURE 19

A.



B.

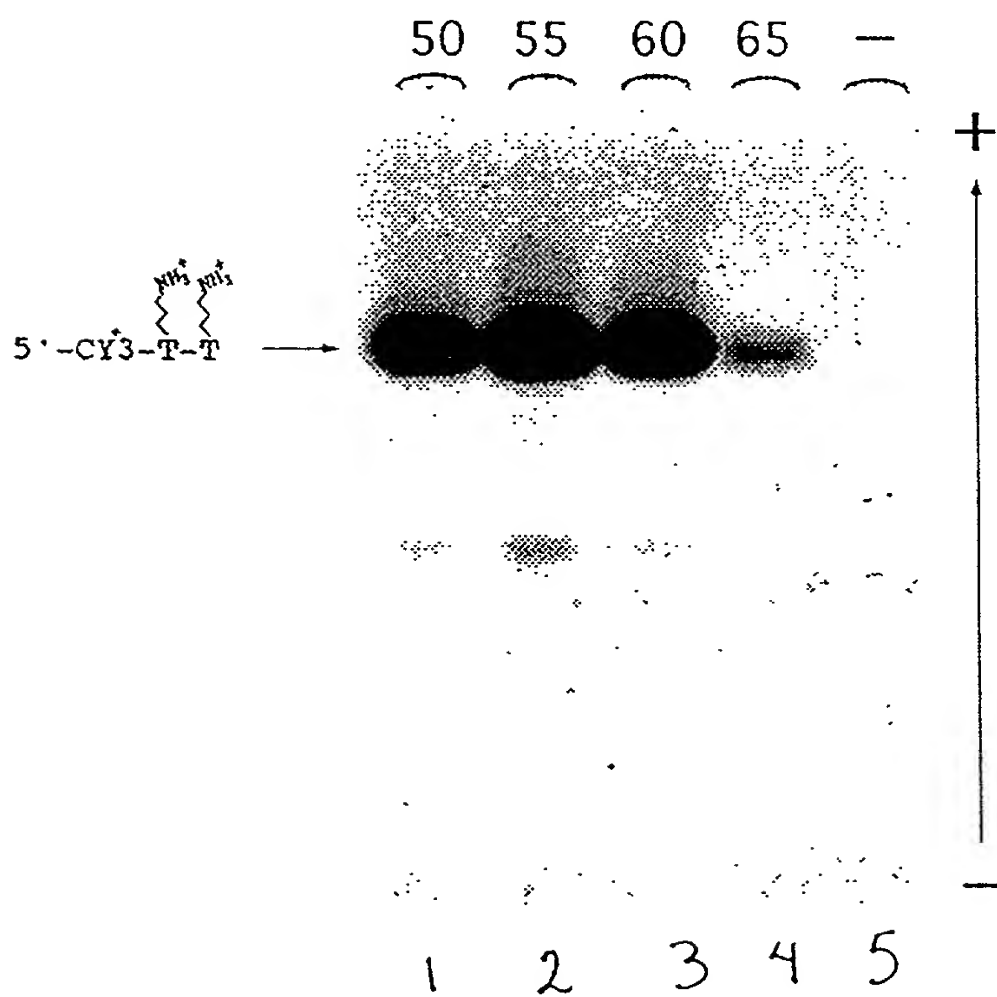


FIGURE 20

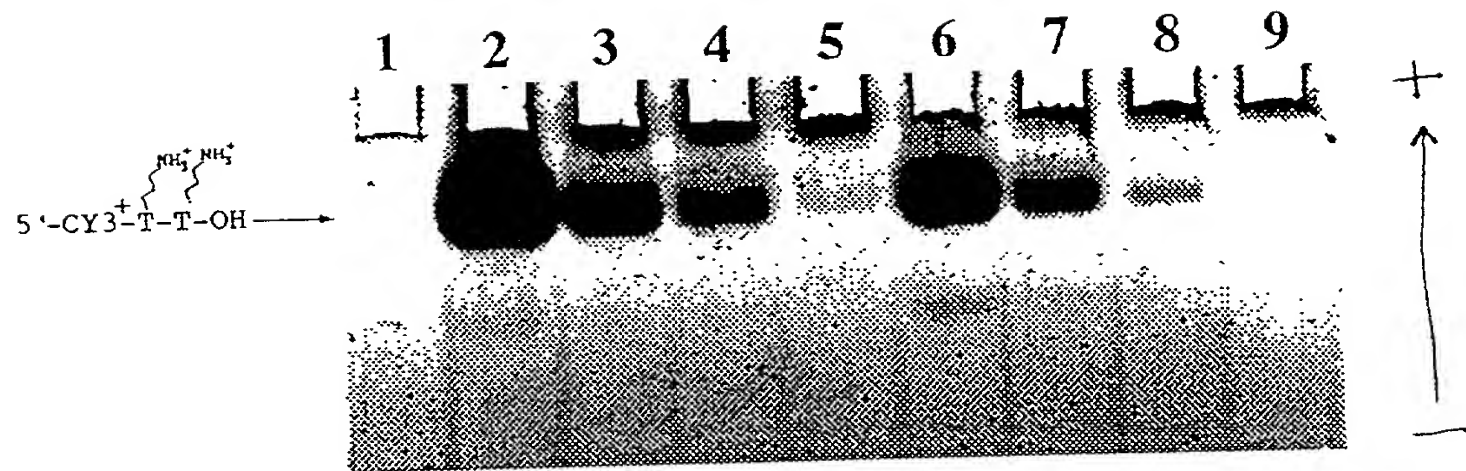
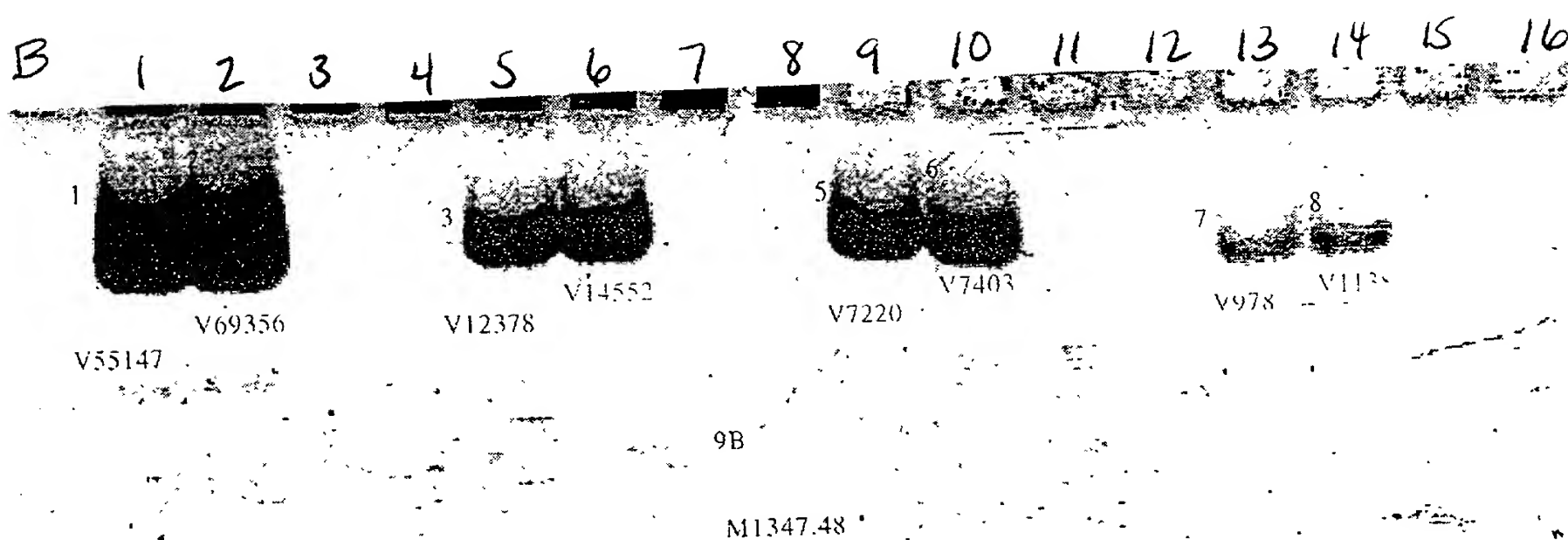
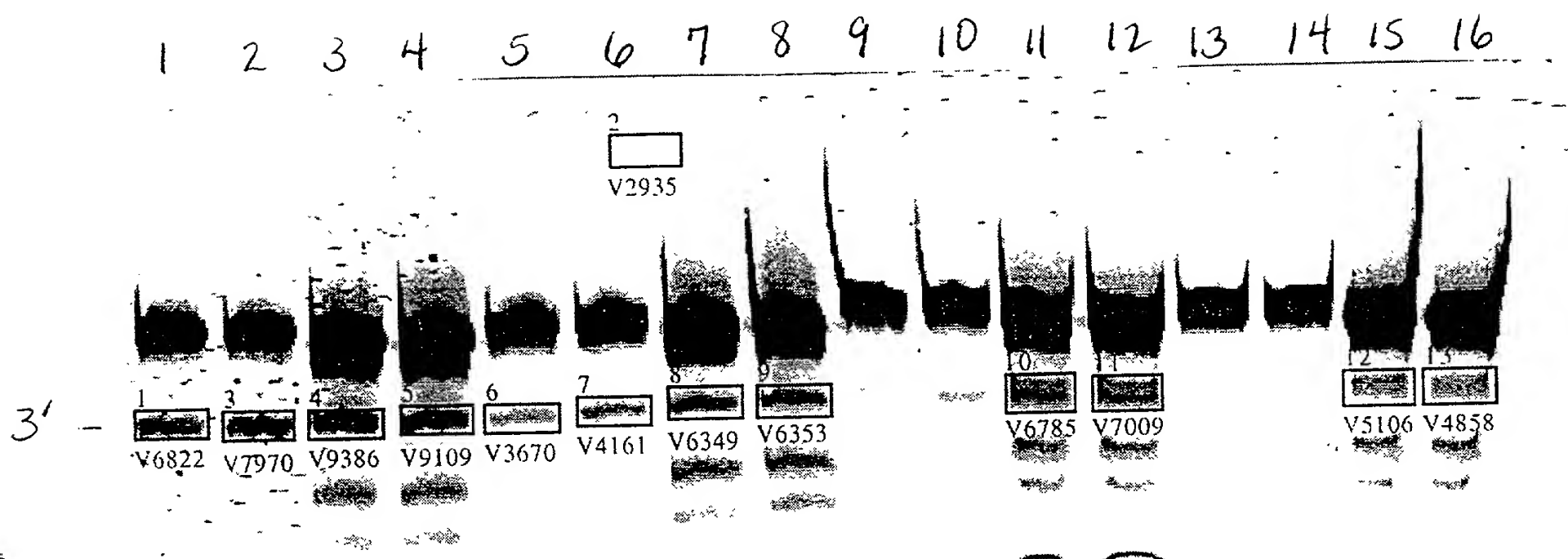


FIGURE 21

A



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FIGURE 22

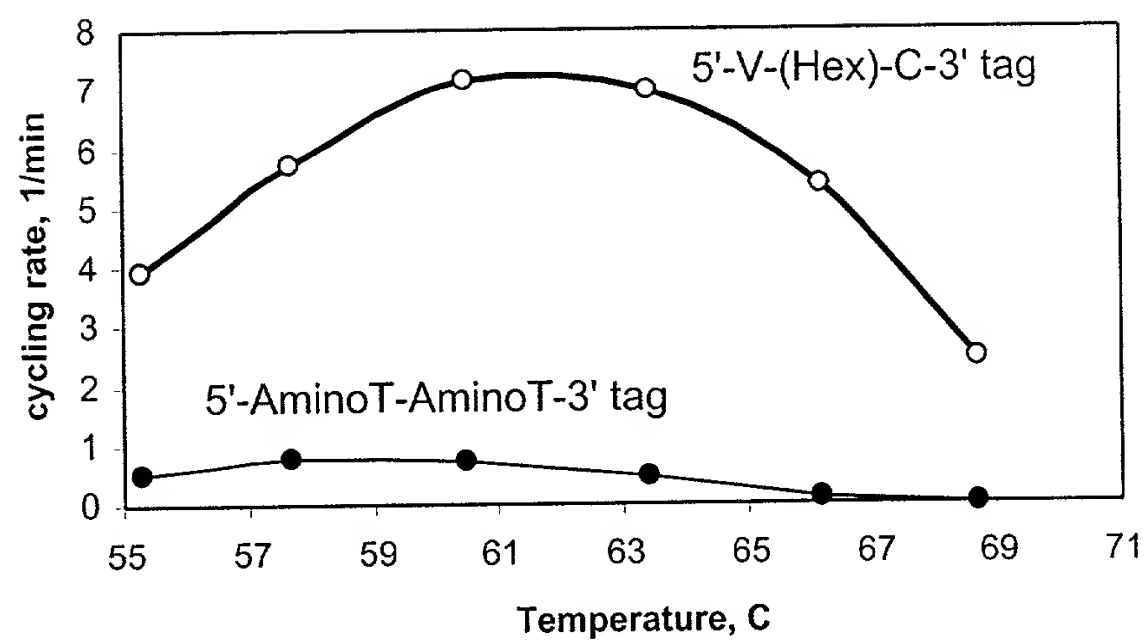
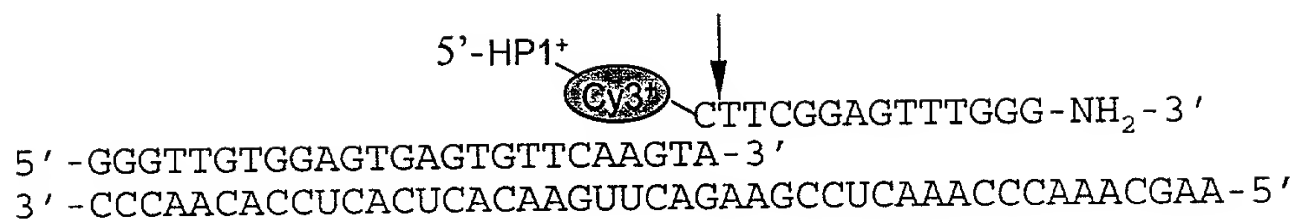
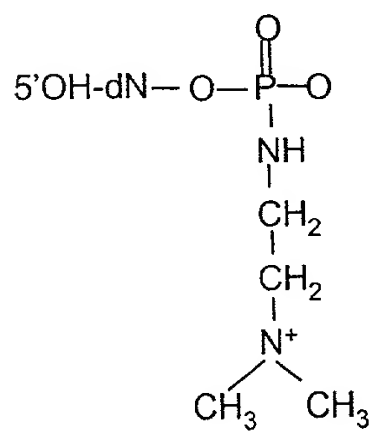


FIGURE 23

A.

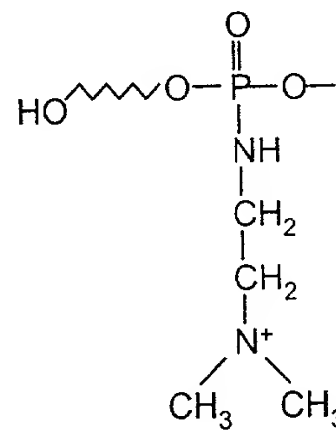


B.



V(dN)

804-41



V(HEX)

FIGURE 24A

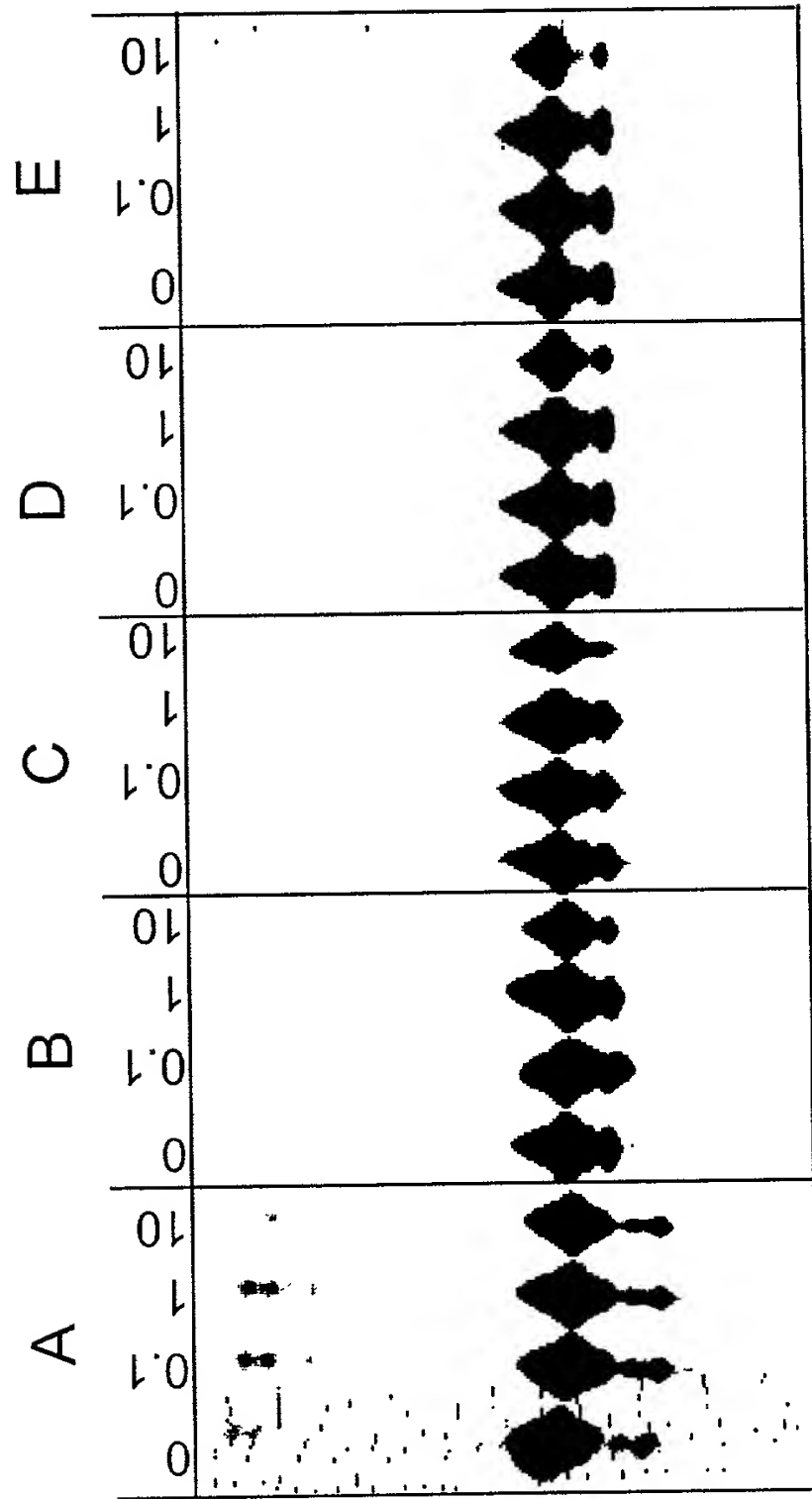


FIGURE 24B

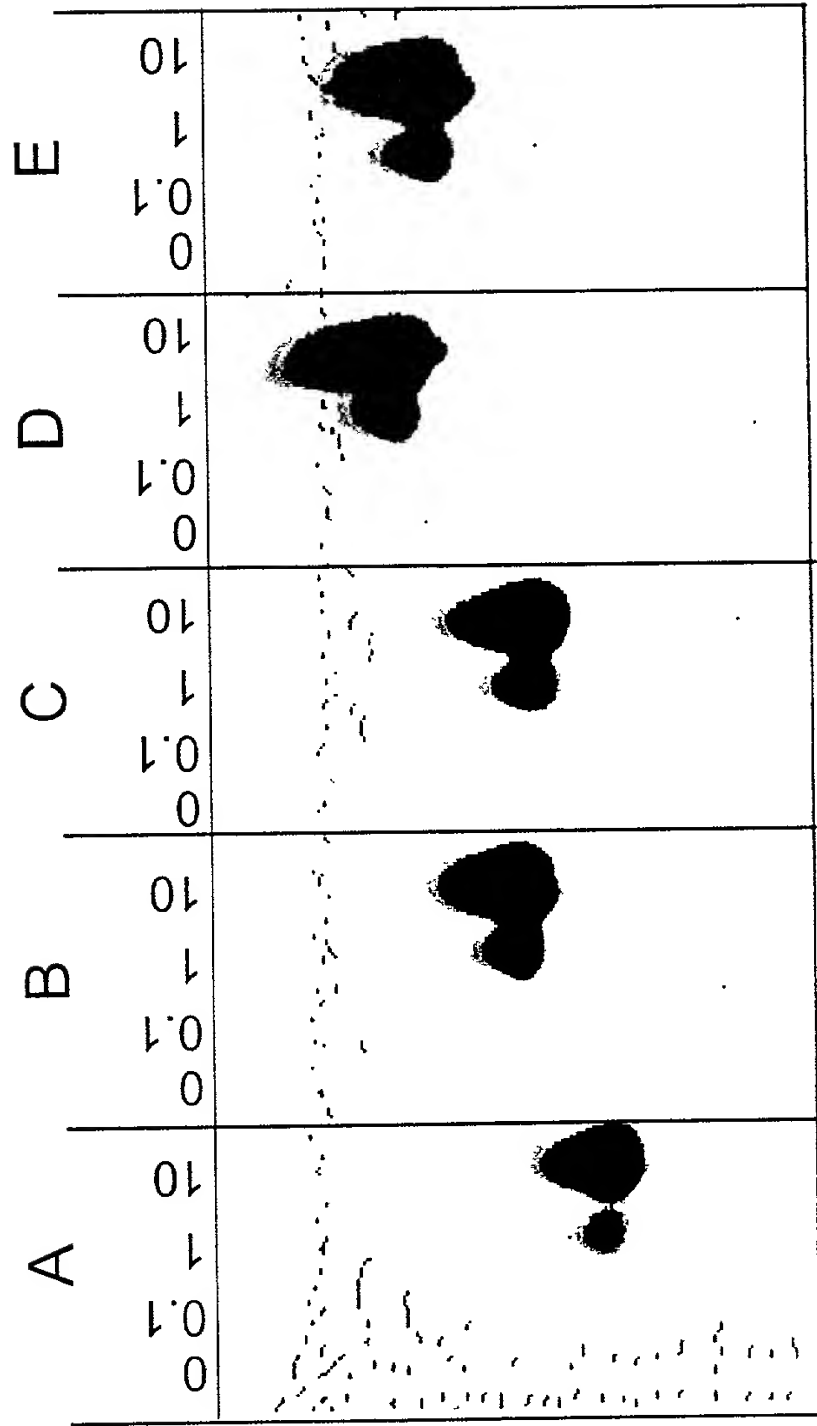


FIGURE 25

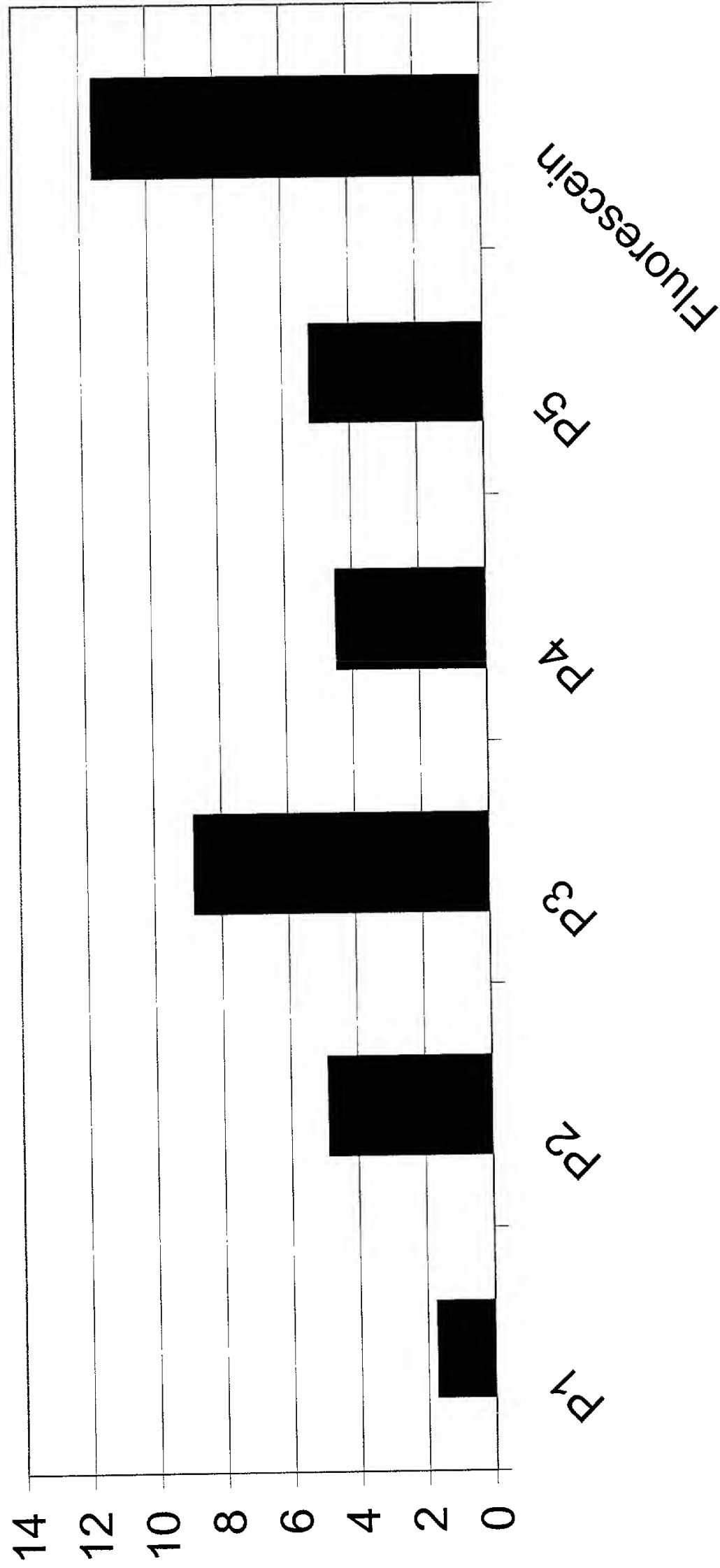


FIGURE 26A

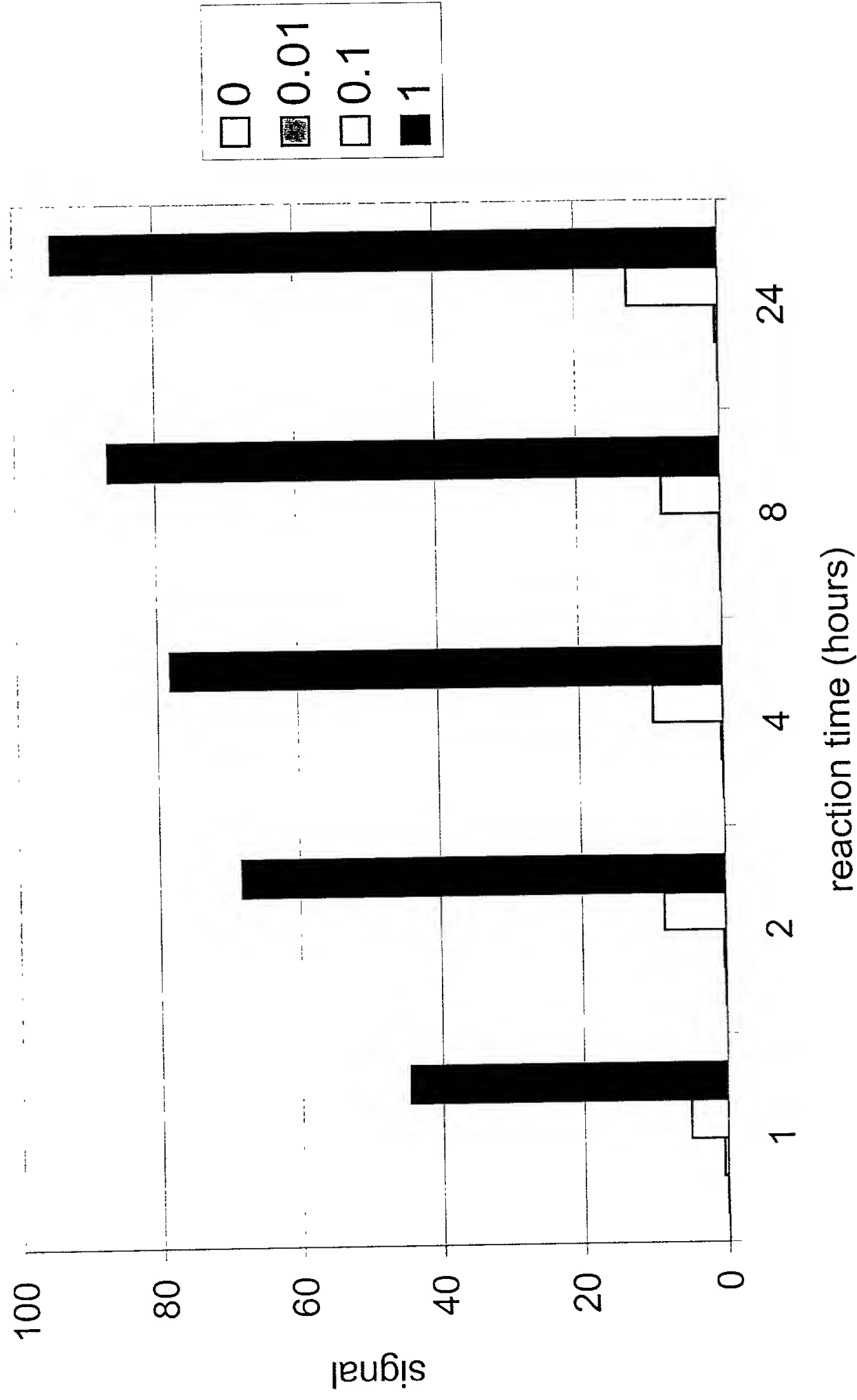


FIGURE 26B

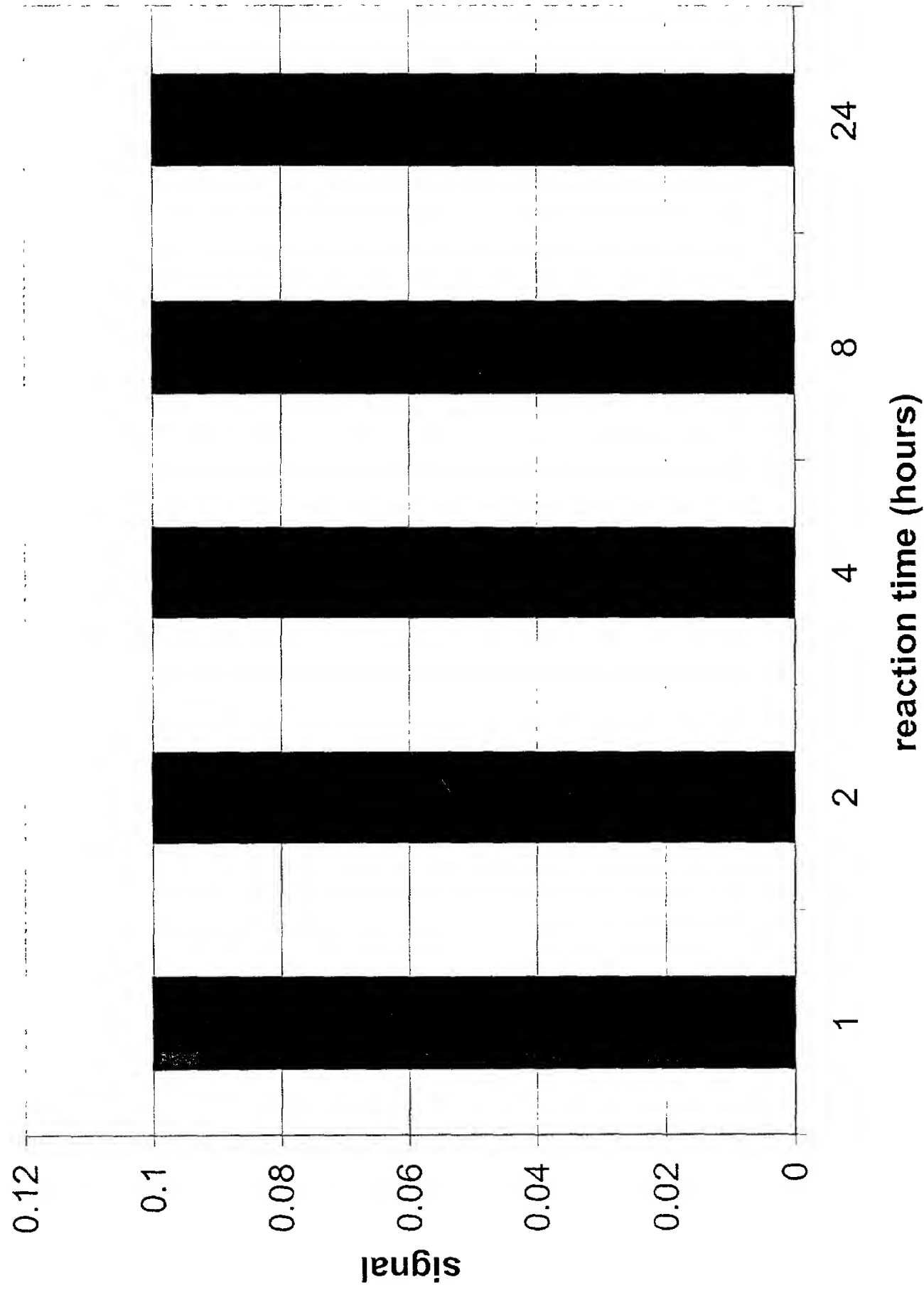


FIGURE 27

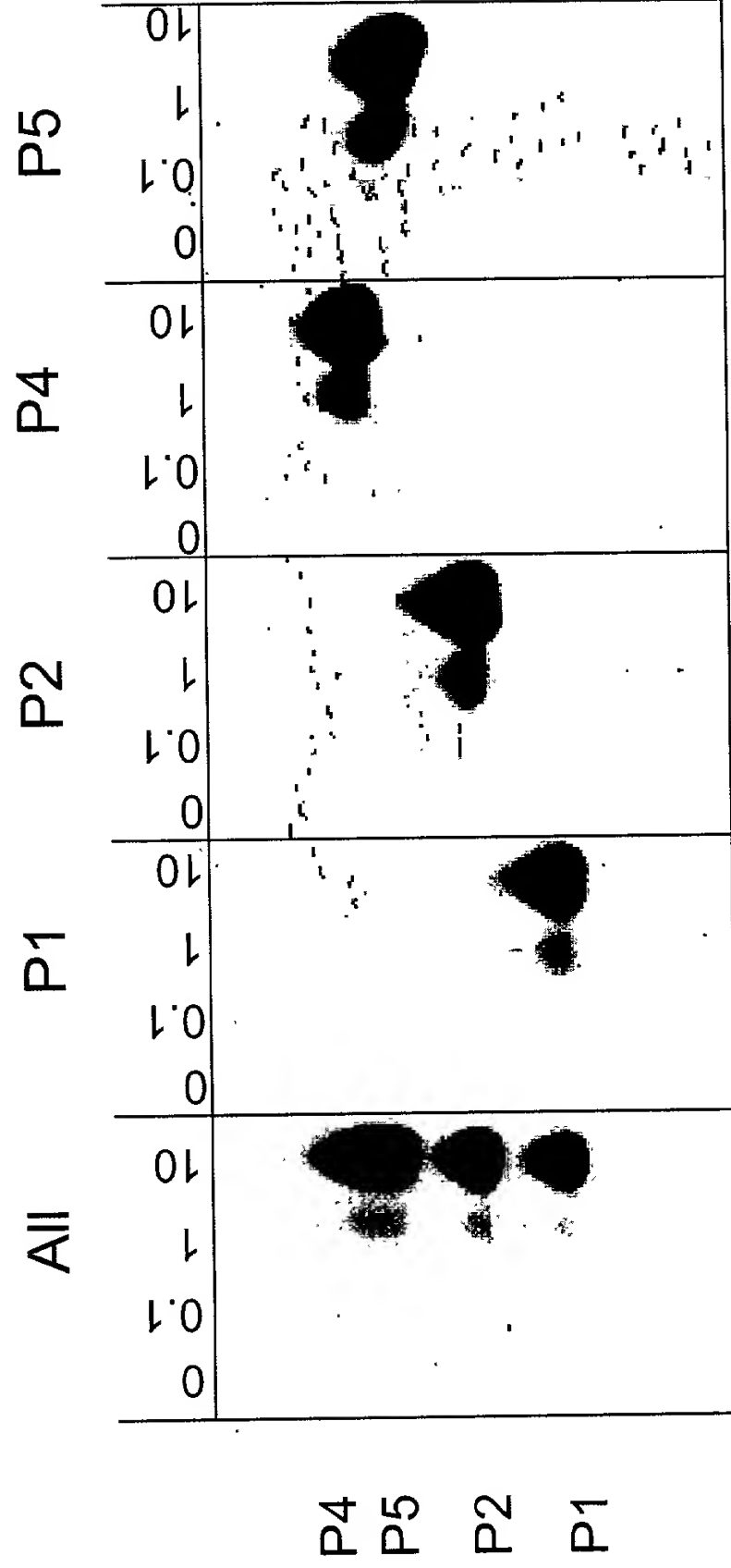
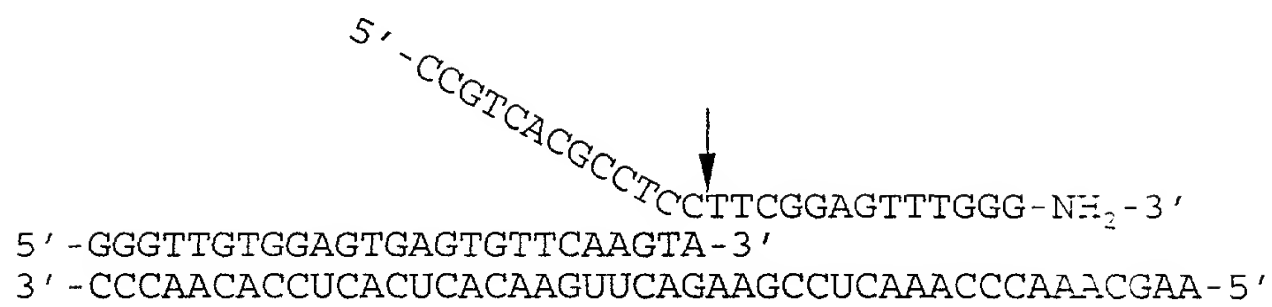
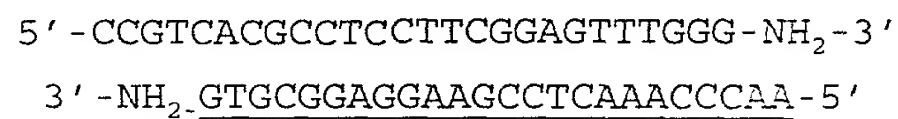


FIGURE 28A

Primary reaction



Human MCP-1 mRNA



Secondary reaction

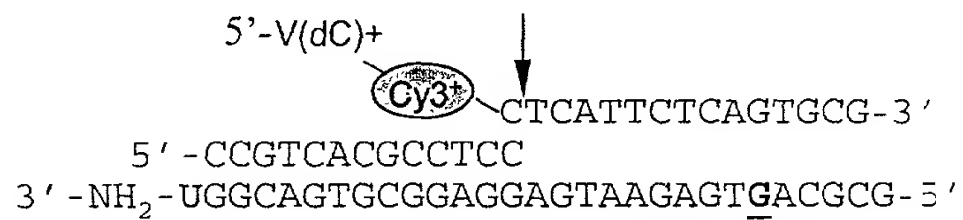
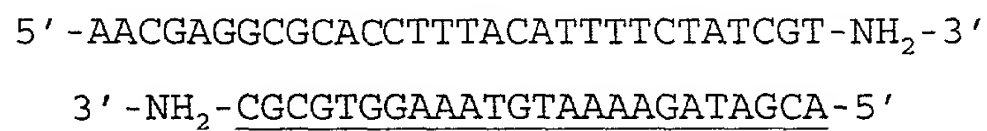


FIGURE 28B

Primary reaction



Human Ubiquitin mRNA



Secondary reaction

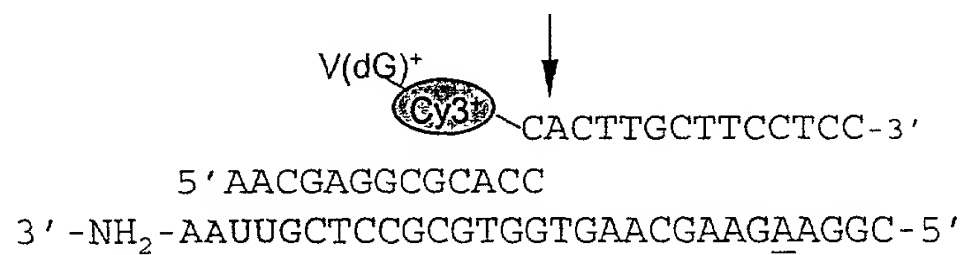


FIGURE 29

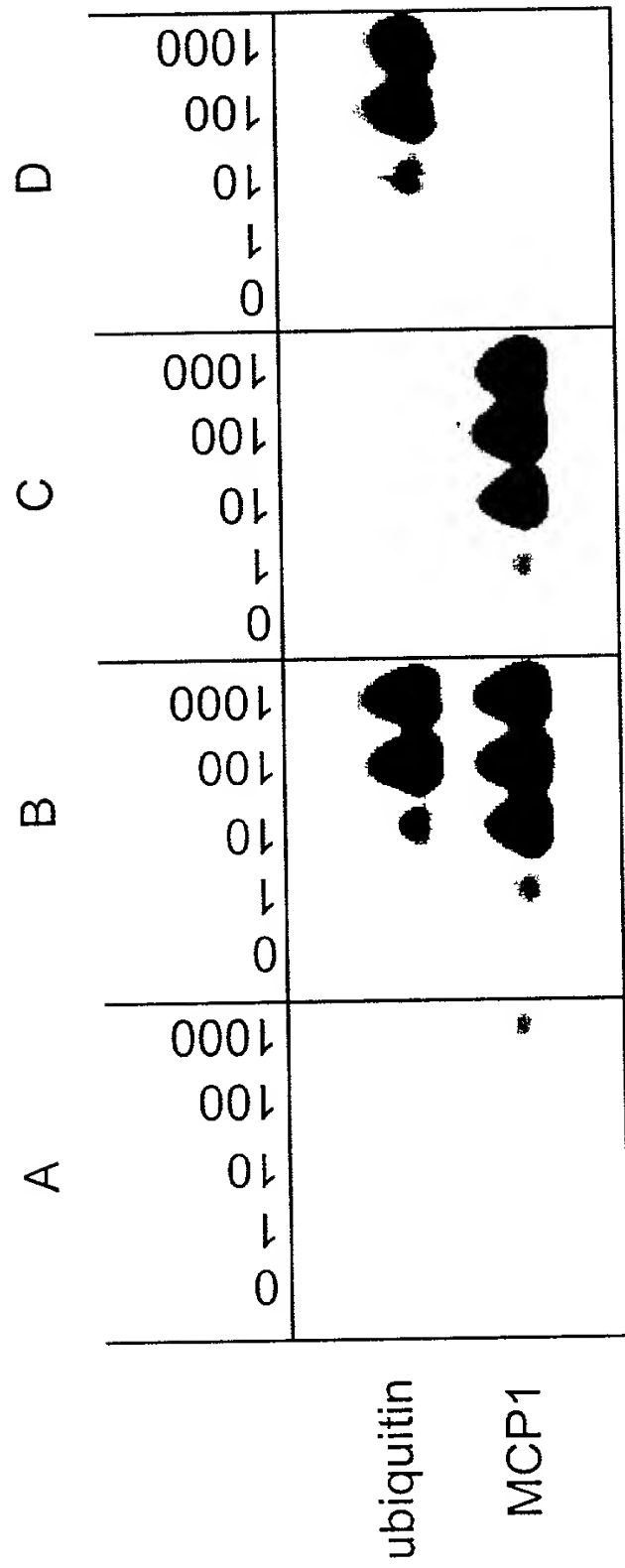


FIGURE 30A

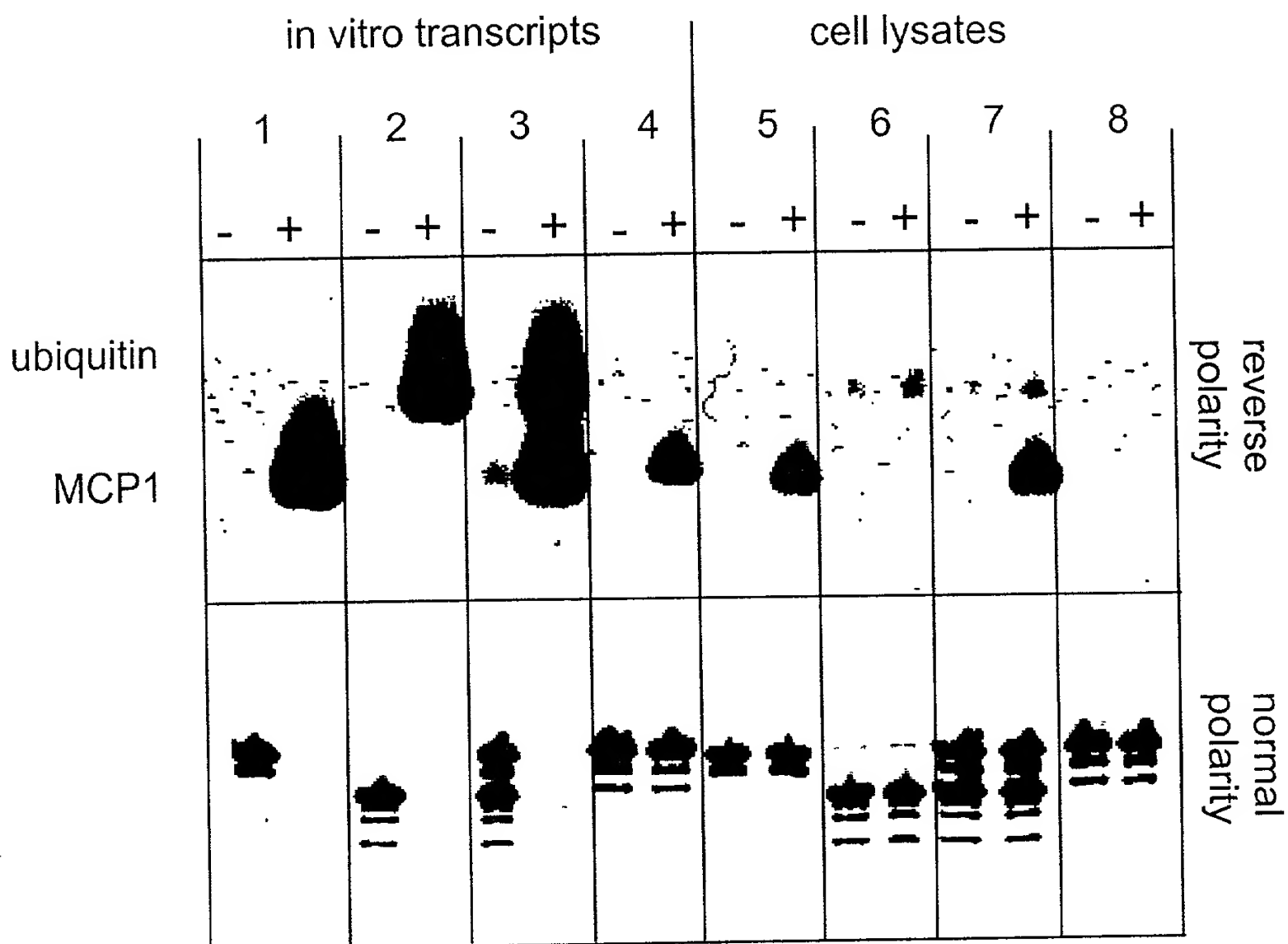
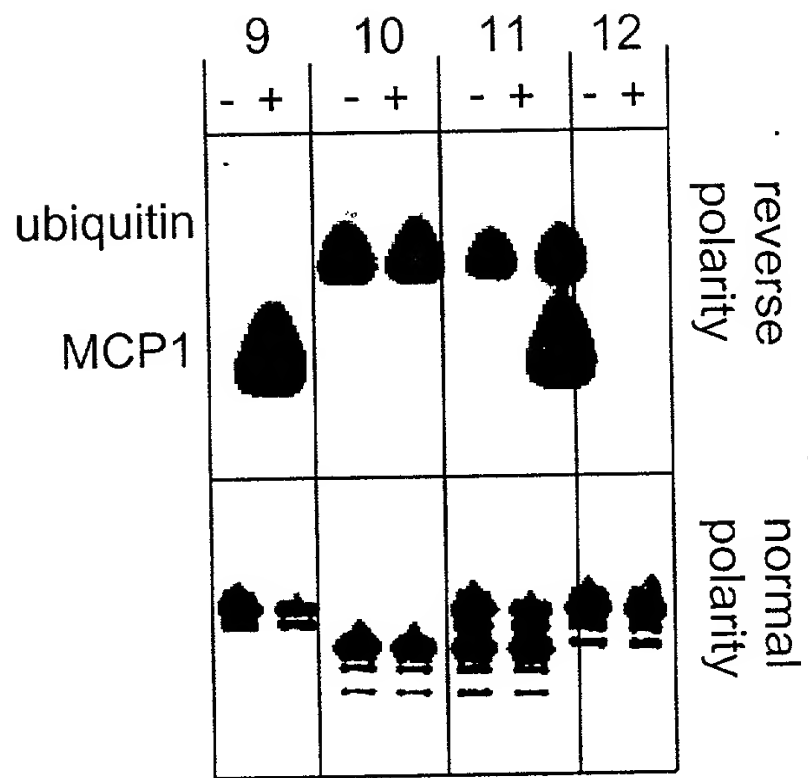


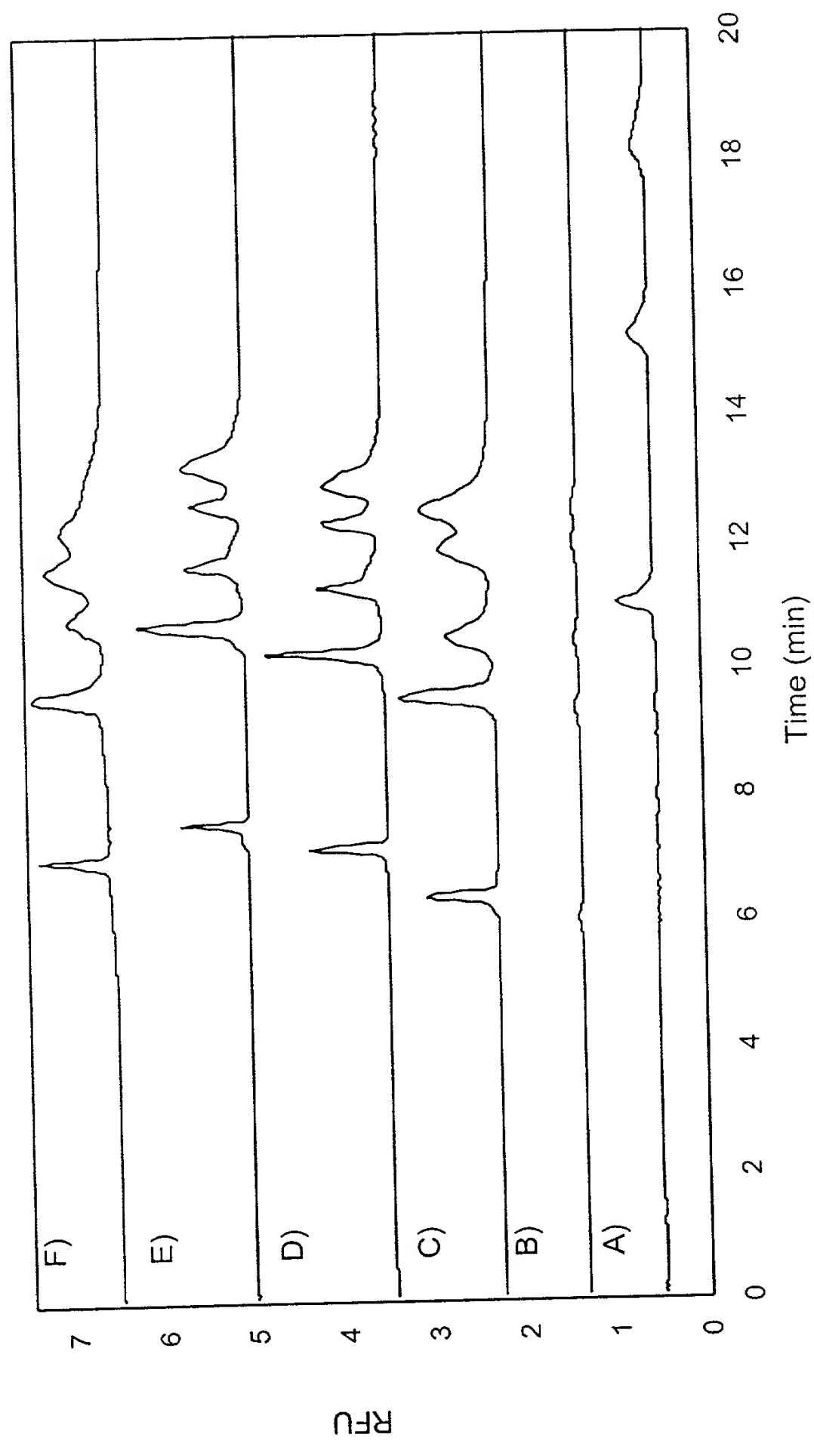
FIGURE 30B



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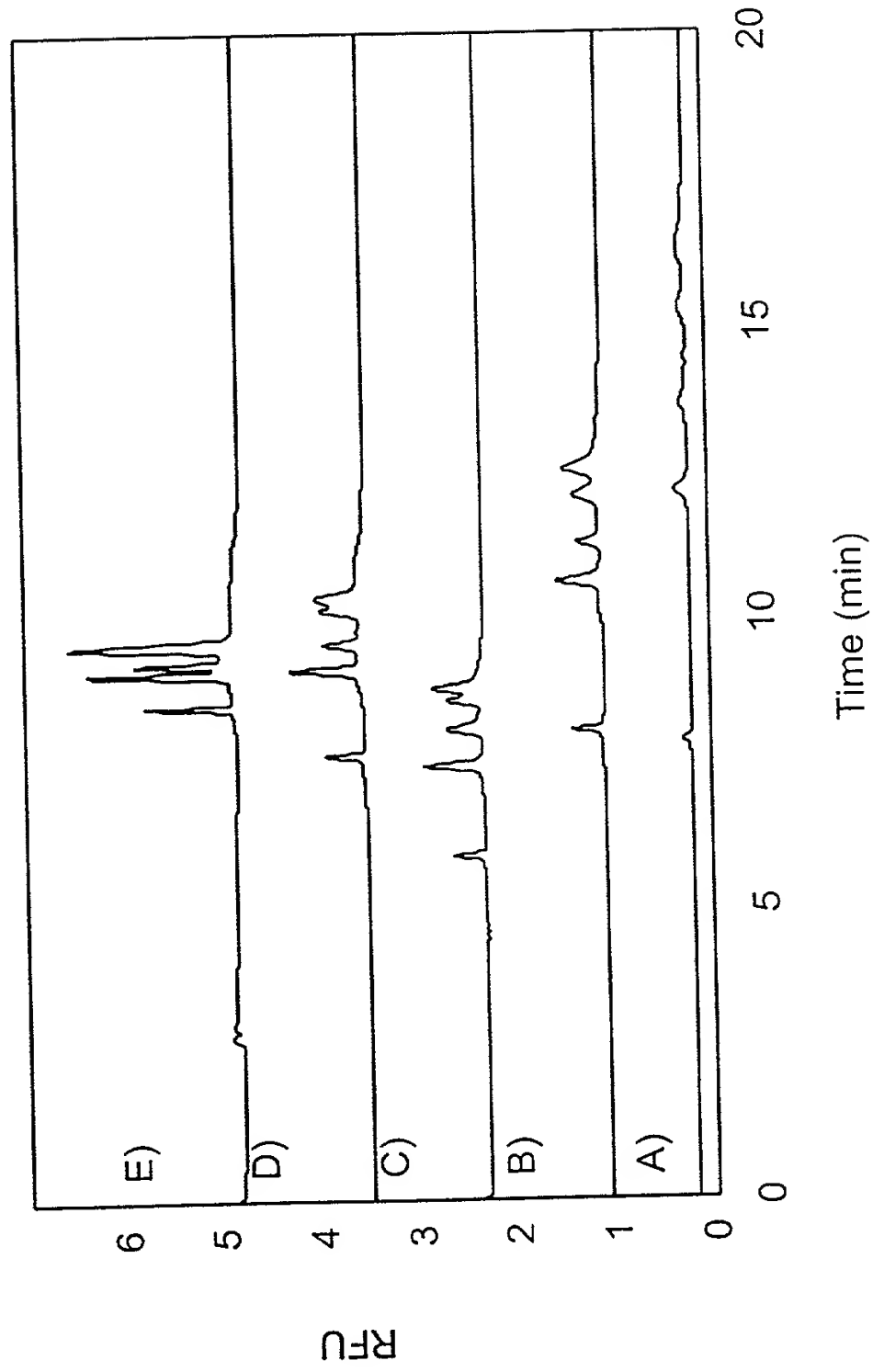
Figure 31 shows the chromatograms of the samples A, B, C, D, E, and F. The x-axis represents Time (min) from 0 to 20, and the y-axis represents RFU from 0 to 7. The chromatograms show peaks at various retention times, with sample F having the highest RFU values and sample A having the lowest.

FIGURE 31



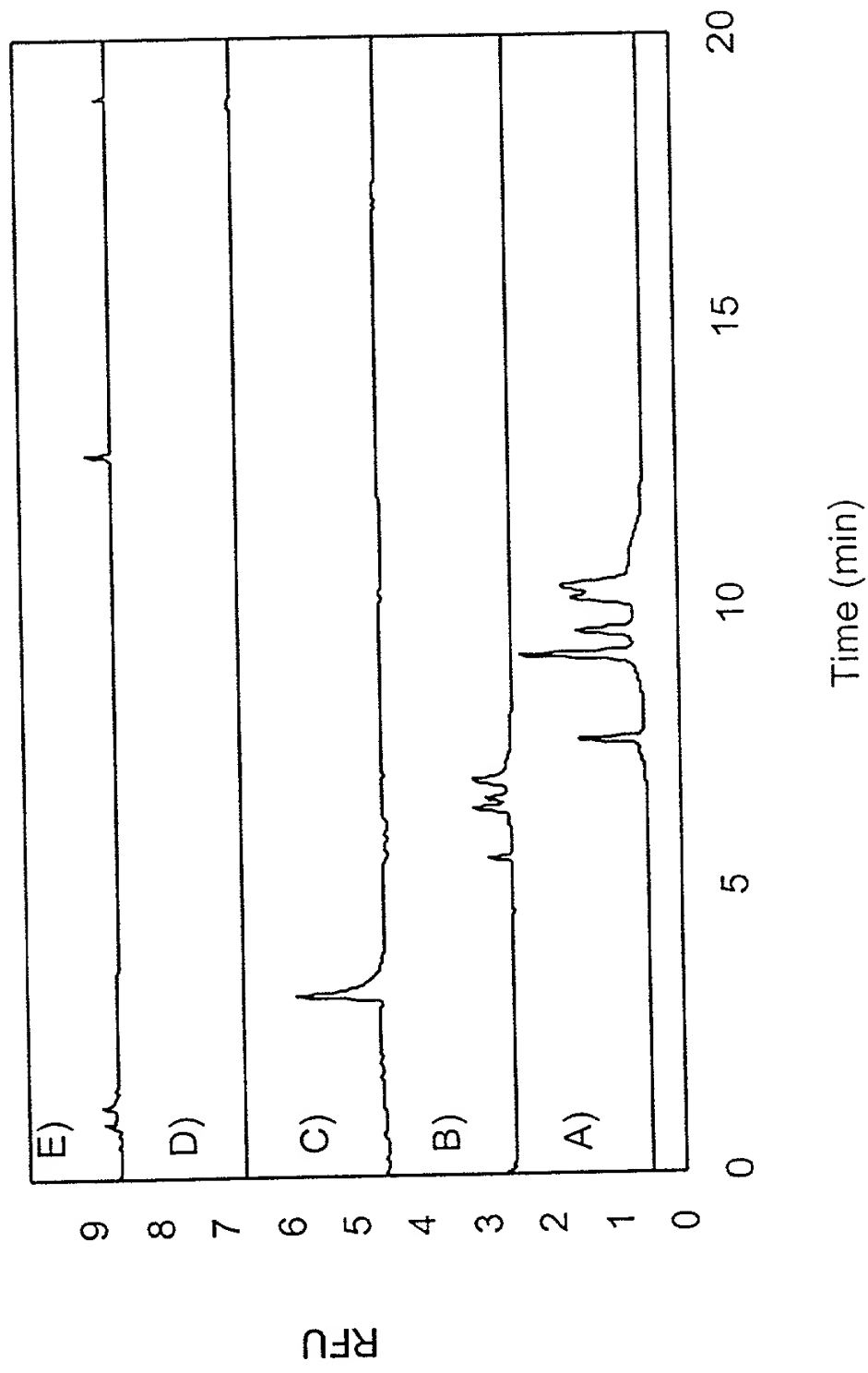
3746

FIGURE 32



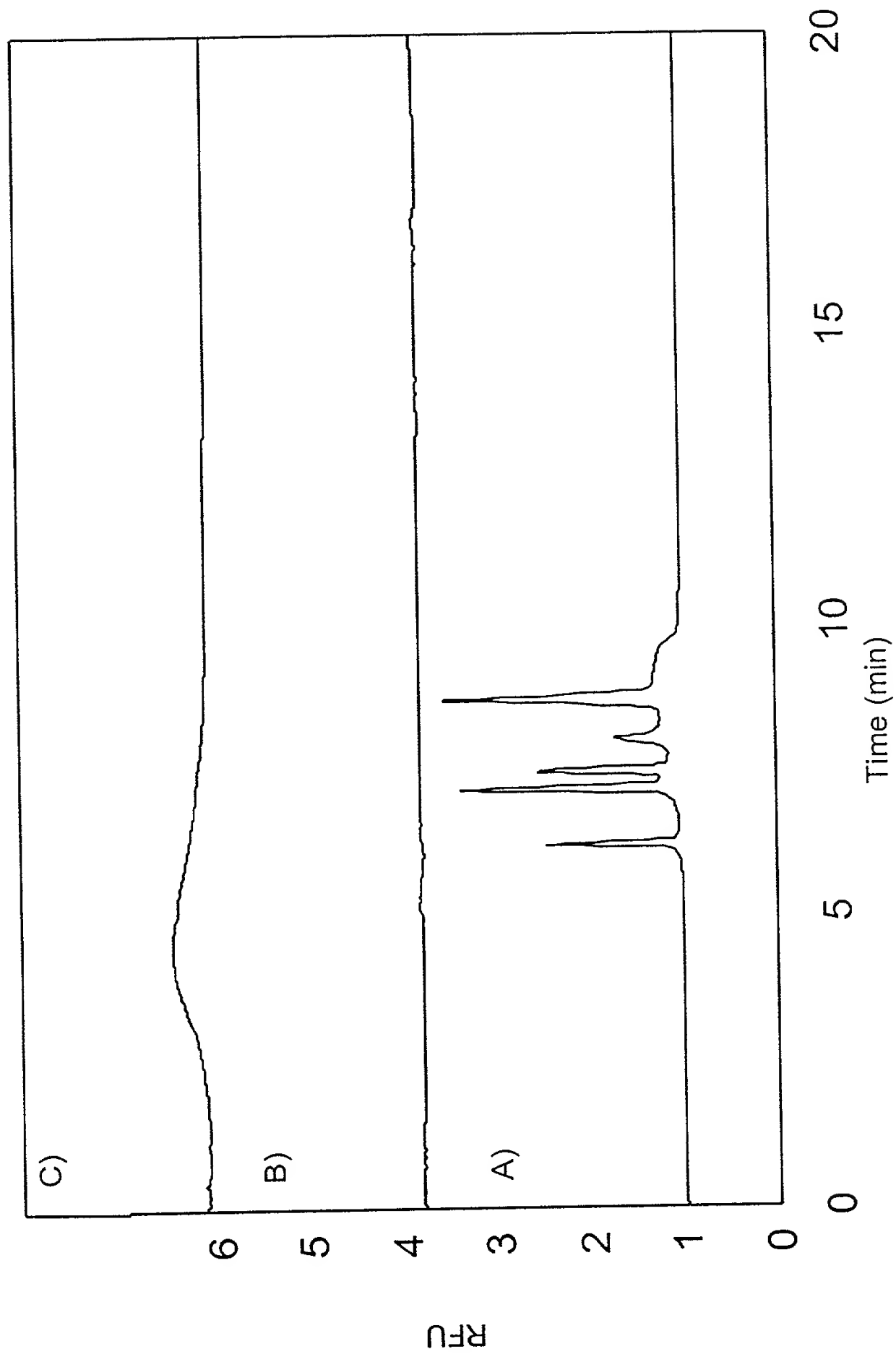
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FIGURE 33



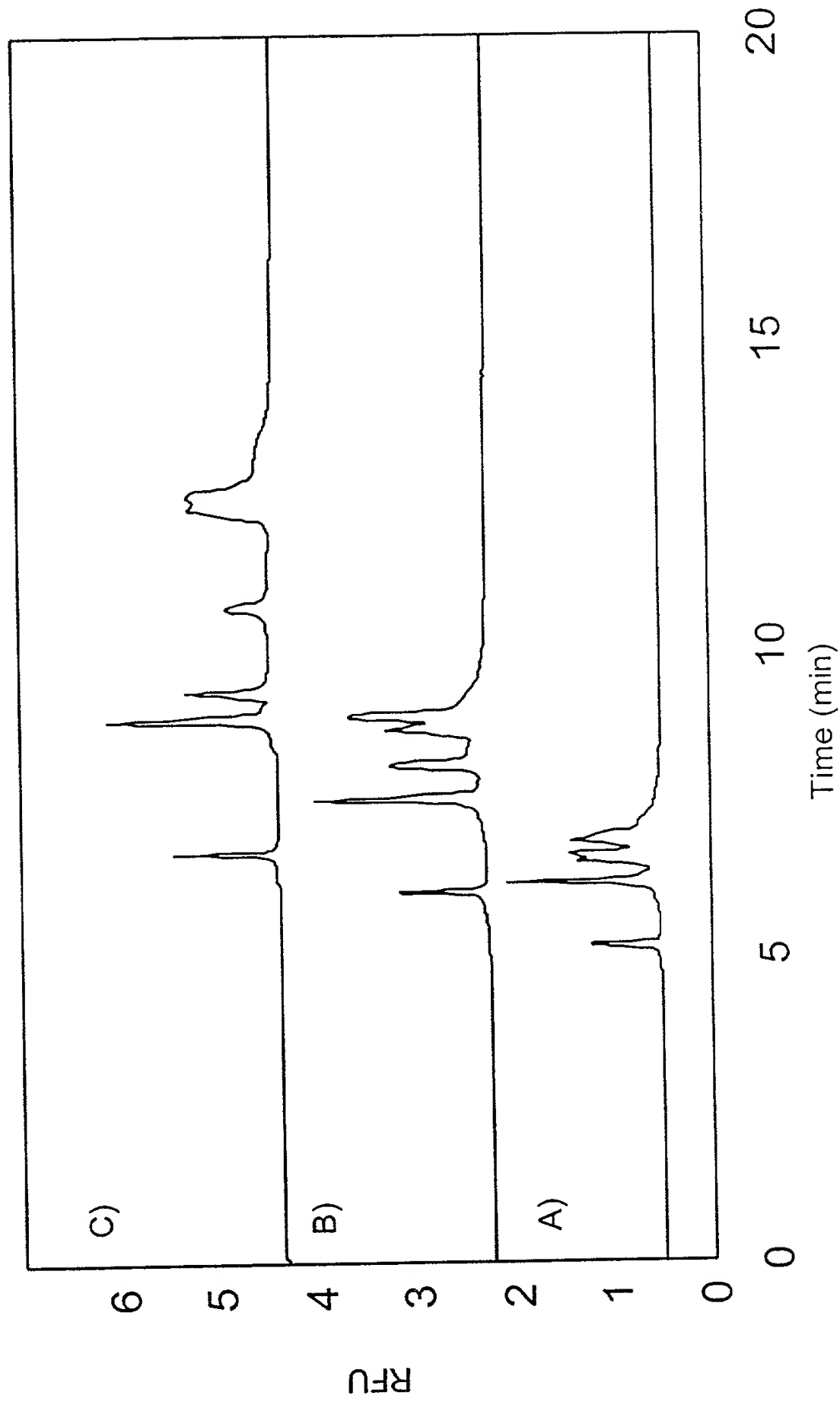
9h/bc

FIGURE 34



9/11/15

FIGURE 35



9h/1b

FIGURE 36

